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**aeromet**

MONTHLY PROGRESS REPORT NO. 3

for the period May 1-31, 1976

to

ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

**aeromet inc.**P.O. BOX FF      NORMAN, OKLAHOMA 73069  
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for the period May 1-31, 1976

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REGION VIII

1860 Lincoln St., Suite 900

Denver, CO 80203

Contract No. 68-01-1946

by

Aeromet, Inc.

Box FF

Norman, OK 73070

July 17, 1976

COLORADO CB TRACT

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## 1.0 INTRODUCTION

Low level temperature and wind data were collected for May 1976 at Casper, Wyoming; the Shell Oil Co. Colorado CB Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville, Utah; and Rock Springs, Wyoming. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made 1/2 hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 600 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built in Rustrak strip chart recorder and the temperature was recorded within the range from -50 to +50°C. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The monthly Progress Report is divided into six parts, one corresponding to each of the six field sites. The temperature and wind data collected are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary section.



## 2.1 Colorado CB Tract Field Summary

No difficulties were experienced during the month of May. The observers attempted 93% of the scheduled pilot balloon launches resulting in a 90% recovery of the temperature data and an 80% recovery of the wind data. Poor weather conditions were the cause of the 13% loss in wind data.





## 2.2 Mixing Layer Height

The average mixing layer height was derived subjectively from the morning and afternoon temperature and wind profiles. The morning sounding was near the minimum temperature while the afternoon sounding was near the maximum temperature providing a good comparison for defining an average mixing layer height. If the mixing layer height derived from only the morning sounding for the lower 2000m was not maintained throughout the day because of temperature changes due to advection, then one was not defined to exist. A blank indicates there were insufficient data to calculate a mixing layer height. It is still contended that for the proper scientific evaluation and interpretation of the mixing layer height that an objective method be used. A library research on the topic is continuing, however the most acceptable method is to measure the minimum and maximum temperatures, add a heat island effect factor and trace the dry adiabatic to the point of intersection on the given temperature profile. The field sites are not equipped with minimum/maximum thermometers so an alternative method is under investigation.

## 2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.



### 3.0 DATA PROCESSING

#### 3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthognal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the  $\Delta T/100m$  criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	$\Delta T$ ( $^{\circ}C/100m$ )	WIND SPEED
A	$<-1.9$	$\leq 2$
B	$-1.9 - -1.7$	$\leq 5$
C	$-1.7 - -1.5$	$\leq 6$
D	$-1.5 - -0.5$	ALL SPEEDS
E	$-0.5 - 1.5$	$\leq 5$
F	$>1.5$	$\leq 3$

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,



if the  $\Delta T/100\text{m}$  value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a  $\Delta T$  value of 1.7°C/100 m and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.





The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

MONTH: MARCH      YEAR: 1976.      CASPER      SFC TO 500 METERS

[illegible]





and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. Number
Casper, Wyoming	1
Colorado CB Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6

The month and season number codes are as follows.

MONTH	1-12
SEASON	13=DJF
	14=MAM
	15=JJA
	16=SON
ANNUAL	17



PILOT BALLOON SUMMARY  
 Colorado CB Tract  
 May, 1976

May 2	0604	The receiver lost lock on the sonde 1 minute after the launch and it was not retuned until 12½ minutes after the launch. The temperature data were interpolated over the interval.
	1205	
May 4	0630	There appeared to be interference in the temperature signal after 5½ minutes. The confidence in the accuracy of the data after 5½ minutes is low.
	1230	
May 6	0630	
	1230	
May 8	0610	Rain prevented the tracking of the balloon with the theodolite.
	1236	Rain prevented the tracking of the balloon with the theodolite.
May 10	0700	
	1230	
May 12	0600	The temperature data were interpolated over the interval from 14½ to 17 minutes.
	1300	The temperature data were interpolated over the interval from 6 to 8½ minutes elapsed time. The balloon entered the clouds after 10½ minutes.
May 14	0545	
	1300	
May 16	MORN }	No observations were taken and no reason was given.
	AFTN }	



May 18	0630	
	1300	The temperature data were interpolated over the interval from $16\frac{1}{2}$ to 19 minutes elapsed time. The balloon entered the clouds after $10\frac{1}{2}$ minutes.
May 20	0600	The sonde appeared to have malfunctioned 1 minute after the launch and no temperature data were recovered. Rain prevented the tracking of the balloon with the theodolite.
	1230	Rain prevented the tracking of the balloon with the theodolite.
May 22	0600	The balloon entered the clouds after 9 minutes.
	1230	
May 24	0600	
	1230	The balloon broke after $8\frac{1}{2}$ minutes. Equipment malfunction did not appear to be the cause for the steep lapse rate.
May 26	0600	The temperature data were interpolated over the interval from $8\frac{1}{2}$ to 11 minutes.
	1230	
May 28	0600	
	1230	
May 30	0700	The temperature data were noisy during the interval from 1 to 3 minutes elapsed time so the data were smoothed. The balloon entered the clouds after 11 minutes.
	1200	No start time was given on the temperature trace and it had to be estimated. The temperature data were interpolated for the interval from 17 to 20 minutes.



CLOUD COVER AND SIGNIFICANT WEATHER  
COLORADO CB TRACT

MAY, 1976

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2	clear	scattered
4	broken	scattered, haze
6	overcast, rain	overcast, rain
8	overcast, rain	overcast, rain
10	clear	broken, rain
12	scattered	broken
14	clear	clear
16		
18	scattered	broken
20	overcast, rain	overcast, rain
22	overcast	overcast
24	clear	clear
26	clear	scattered, TCU east
28	scattered	scattered
30	broken	scattered





AVERAGE MIXING LAYER HEIGHT

Colorado CB Tract

May, 1976

<u>DATE</u>	<u>HEIGHT</u>
2	1000m
4	600m
6	900m
8	none defined
10	2000m
12	1700m
14	none defined
16	
18	2200m
20	none defined
22	300m
24	none defined
26	300m
28	600m
30	500m



COL CR TRACT FLEV 2042 METERS SOUNDING ID 2241  
 E 05/02/76 TIME 06:04HST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC	2192	6.00		0.0		7.7	360.
0.8	150	2342	7.75	1.75	-2.13	0.80	4.8	343.
1.6	? 300	2342	6.42	-1.34	-1.97	0.96	3.3	344.
2.5	458.	? 2500.	5.23	-1.19	-1.97	0.96	1.7	334.
3.7	? 500	2542	4.93	-0.30	-1.97	0.96	2.6	343.
5.2	958.	? 3000.	2.30	-2.63	-1.97	0.96	4.5	170.
8.7	1958.	? 4000.	-4.30	-6.60	-1.97	0.96	9.4	346.
5.6	2958.	5000.	-12.60	-8.40	-2.62	0.30		
0.9	3958.	6000.	-20.00	-7.30	-2.30	0.63		

COL CR TRACT FLEV 2042 METERS SOUNDING ID 2241  
 E 05/02/76 TIME 06:04HST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	-7.7	7.7	360.
0.5	91.	2133.	1.5	-5.1	5.3	344.
1.0	183.	2225.	1.4	-4.3	4.5	342.
1.5	274.	2316.	1.4	-3.9	4.2	340.
2.0	366.	2408.	0.1	-1.1	1.1	354.
2.5	457.	2499.	0.7	-1.5	1.7	334.
3.0	549.	2591.	0.4	-3.7	3.7	353.
3.5	640.	2682.	-0.1	-2.4	2.4	353.
4.0	732.	2774.	0.3	-4.1	4.1	355.
4.5	823.	2865.	0.0	-4.3	4.4	348.
5.0	914.	2956.	-0.1	-4.6	4.6	2.
5.5	1006.	3048.	0.4	-4.4	4.4	355.
6.0	1097.	3139.	0.4	-3.8	3.8	355.
6.5	1189.	3231.	0.2	-7.8	7.8	358.
7.0	1280.	3322.	0.7	-7.0	7.1	354.
7.5	1372.	3414.	0.2	-7.8	7.8	359.
8.0	1463.	3505.	-0.2	-7.5	7.5	2.
8.5	1554.	3596.	0.1	-8.0	8.0	360.
9.0	1646.	3688.	0.2	-9.7	9.7	359.
9.5	1737.	3779.	0.7	-13.2	13.2	357.
10.0	1829.	3871.	-1.0	-5.9	6.9	6.
10.5	1920.	3962.	2.0	-9.5	10.0	343.
11.0	2012.	4054.	1.7	-8.5	8.7	349.
11.5	2103.	4145.	2.1	-7.0	7.3	343.
12.0	2195.	4237.	5.4	-9.3	10.8	330.



COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2242  
 DATE 05/02/76    TIME 12:05MST    ASCENT RATE 600 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
.	SFC		14.80		0.0		7.7	225.
0.7	150	2192	12.75	-2.05	-4.76	-1.83	4.7	286.
1.2	300	2342	10.94	-1.81	-4.26	-1.34	6.5	290.
1.8	450	2500.	9.20	-1.68	-3.44	-0.52	6.7	288.
2.0	500	2542	9.21	-0.05	-3.44	-0.52	6.5	286.
4.4	958.	3000.	5.30	-3.90	-2.46	0.47	0.7	233.
9.6	1958.	4000.	-4.00	-6.01	-2.62	0.30	4.7	230.
15.0	2958.	5000.	-11.30	-7.60	-2.46	0.47		

COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2242  
 DATE 05/02/76    TIME 12:05MST    ASCENT RATE 600 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	5.5	5.5	7.7	225.
0.5	91.	2133.	3.6	-1.0	3.8	285.
1.0	241.	2283.	5.8	-1.9	6.1	286.
1.5	386.	2428.	6.5	-2.7	7.1	293.
2.0	500.	2548.	6.3	-1.7	6.5	285.
2.5	614.	2656.	4.1	-1.7	4.5	292.
3.0	710.	2752.	1.6	-1.9	2.5	320.
3.5	801.	2843.	2.1	-1.1	2.3	297.
4.0	892.	2934.	0.2	0.4	0.5	211.
4.5	984.	3026.	0.7	0.4	0.8	242.
5.0	1075.	3117.	1.1	0.0	1.1	276.
5.5	1185.	3227.	1.9	1.3	1.5	215.
6.0	1290.	3332.	1.3	2.0	2.4	214.
6.5	1382.	3424.	5.5	0.0	5.5	270.
7.0	1473.	3515.	3.8	2.8	4.7	233.
7.5	1566.	3606.	1.0	3.5	3.7	196.
8.0	1658.	3700.	2.3	3.5	4.2	213.
8.5	1749.	3791.	1.9	2.9	3.5	214.
9.0	1841.	3883.	2.5	3.0	3.9	219.
9.5	1932.	3974.	3.6	3.3	4.9	228.
10.0	2024.	4066.	3.4	2.4	4.2	235.
10.5	2115.	4157.	3.9	2.2	4.5	240.
11.0	2206.	4248.	5.4	1.8	5.7	252.
11.5	2298.	4340.	5.8	3.4	6.7	240.
12.0	2389.	4431.	7.0	4.0	8.1	241.



COL CR TRACT      ELEV 2042 METERS      SOUNDING ID 2240  
 DATE 05/04/76      TIME 06:30MST      ASCENT RATE 600 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		7.80		0.0		5.1	270.
0.5	150	2192	5.99	-1.81	-3.12	-0.19	12.4	206.
1.5	300	2342	4.13	-1.85	-3.44	-0.52	18.6	204.
2.3	458.	2500.	2.80	-1.31	-2.46	0.47	13.3	210.
2.5	500	2542	2.34	-0.48	-1.31	1.62	13.9	209.
5.0	958.	3000.					13.3	210.
10.5	1958.	4000.					13.5	222.

COL CR TRACT      ELEV 2042 METERS      SOUNDING ID 2240  
 DATE 05/04/76      TIME 06:30MST      ASCENT RATE 600 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	5.1	0.0	5.1	270.
0.5	91.	2133.	3.5	7.6	8.4	205.
1.0	191.	2233.	6.8	13.7	15.3	207.
1.5	290.	2338.	7.7	17.2	18.8	204.
2.0	401.	2443.	6.3	10.8	12.5	210.
2.5	500.	2542.	6.8	12.2	14.0	209.
3.0	591.	2633.	3.6	7.7	8.5	205.
3.5	682.	2724.	4.5	7.6	8.8	211.
4.0	774.	2816.	3.3	9.0	9.6	200.
4.5	865.	2907.	5.5	12.4	13.6	204.
5.0	957.	2999.	6.6	11.5	13.3	210.
5.5	1048.	3090.	7.1	8.5	11.0	220.
6.0	1140.	3182.	7.9	10.1	12.8	218.
6.5	1231.	3273.	6.0	7.5	9.6	218.
7.0	1323.	3365.	5.5	7.5	9.3	216.
7.5	1414.	3456.	7.9	11.4	13.9	215.
8.0	1505.	3547.	7.1	7.7	10.4	223.
8.5	1597.	3639.	5.2	5.4	7.5	224.
9.0	1688.	3730.	7.8	10.1	12.7	218.
9.5	1780.	3822.	9.5	11.0	14.6	221.
10.0	1871.	3913.	9.1	9.8	13.3	223.
10.5	1963.	4005.	9.0	10.0	13.5	222.
11.0	2054.	4096.	8.9	10.3	13.6	221.
11.5	2145.	4187.	9.9	12.2	15.8	219.
12.0	2237.	4279.	9.1	10.7	14.1	220.







COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2239

DATE 05/04/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		16.00		0.0		5.1	270.
0.7	150	2192	13.91	-2.09	-3.77	-0.84	10.6	188.
1.2	300	2342	11.79	-2.12	-3.44	-0.52	17.3	188.
2.0	458.	2500.	10.80	-0.96	-2.46	0.47	12.1	186.
2.2	500	2542.	10.31	-0.50	-1.97	0.96	13.0	186.
4.7	958.	3000.	5.80	-4.00	-2.62	0.30	10.6	223.
9.9	1958.	4000.	-3.10	-9.40	-2.95	-0.02	9.7	244.
15.3	2958.	5000.	-10.20	-7.11	-2.62	0.30		
19.9	3958.	6000.	-20.00	-9.80	-3.77	-0.84		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2239

DATE 05/04/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	H-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	5.1	0.0	5.1	270.
0.5	91.	2133.	0.8	7.5	7.5	186.
1.0	239.	2281.	2.7	15.1	15.3	190.
1.5	364.	2406.	2.1	19.3	19.4	186.
2.0	464.	2506.	1.2	11.6	11.6	186.
2.5	555.	2597.	1.8	15.1	15.2	187.
3.0	647.	2689.	12.1	14.1	18.6	221.
3.5	738.	2780.	5.4	11.0	12.3	206.
4.0	834.	2876.	5.3	6.7	6.6	216.
4.5	929.	2971.	6.6	7.1	9.6	223.
5.0	1025.	3067.	8.6	9.3	12.7	223.
5.5	1116.	3158.	8.2	7.7	11.2	227.
6.0	1207.	3249.	7.5	2.4	7.9	252.
6.5	1299.	3341.	9.4	6.1	11.2	237.
7.0	1401.	3443.	11.7	4.6	12.6	249.
7.5	1497.	3539.	8.6	6.2	10.7	234.
8.0	1602.	3644.	8.1	6.2	10.2	232.
8.5	1698.	3740.	8.9	1.1	9.0	263.
9.0	1789.	3831.	8.5	3.1	9.1	250.
9.5	1885.	3927.	7.1	2.9	7.6	248.
10.0	1987.	4029.	9.4	4.8	10.5	243.
10.5	2086.	4128.	7.3	4.0	8.3	241.
11.0	2179.	4221.	8.1	4.1	9.1	243.
11.5	2270.	4312.	7.5	4.2	8.6	241.
12.0	2362.	4404.	6.4	4.1	10.3	246.
12.5	2453.	4495.	9.7	5.9	11.4	239.
13.0	2545.	4587.	8.5	5.0	9.9	240.



COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2246

DATE 05/06/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.30		0.0		1.5	90.
0.8	150	2192	8.21	-1.09	-1.80	1.12	2.6	86.
1.6	300	2342	7.34	-0.87	-2.62	0.30	1.0	257.
2.5	450	2500	5.70	-1.31	-2.46	0.47	1.2	36.
2.7	500	2542	5.73	-0.30	-2.46	0.47	1.4	53.
5.2	958	3000	1.30	-3.62	-3.12	-0.19	3.5	228.
10.5	1958	4000	-7.00	-8.80	-2.79	0.14	4.3	337.
15.3	2958	5000	-17.19	-10.19	-3.28	-0.35		
19.9	3958	6000	-26.80	-9.60	-3.44	-0.52		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2246

DATE 05/06/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042	-1.5	-0.0	1.5	90.
0.5	91.	2133	-2.6	-0.3	2.7	83.
1.0	183.	2225	-2.6	-0.1	2.6	88.
1.5	274.	2316	0.1	-1.0	1.0	350.
2.0	366.	2408	-0.1	-1.0	1.0	3.
2.5	457.	2499	-0.7	-1.0	1.2	36.
3.0	549.	2591	-1.4	-0.4	1.5	73.
3.5	644.	2686	0.1	-1.6	1.6	356.
4.0	742.	2784	-0.7	-2.6	2.7	16.
4.5	833.	2875	-1.3	-4.2	4.4	17.
5.0	925.	2967	0.4	-3.0	3.0	353.
5.5	1016	3058	-0.7	-4.3	4.3	359.
6.0	1114	3156	2.1	-4.5	4.9	335.
6.5	1205	3247	1.0	-3.3	3.5	343.
7.0	1296	3338	2.6	-4.2	4.9	328.
7.5	1388	3430	1.7	-3.9	4.3	337.
8.0	1479	3521	1.7	-3.8	4.2	336.
8.5	1571	3613	2.0	-4.3	4.8	336.
9.0	1662	3704	1.4	-3.6	3.9	339.
9.5	1763	3805	1.5	-4.1	4.3	340.
10.0	1868	3910	1.8	-4.6	4.9	339.
10.5	1964	4006	1.7	-3.9	4.3	337.



COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2248  
 DATE 05/06/76      TIME 12:30MST      ASCENT RATE 600 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		11.50		0.0		2.6	180.
0.7	150	2192	8.86	-2.64	-3.12	-0.19	4.1	108.
1.4	300	2342	7.34	-1.51	-3.12	-0.19	3.9	132.
2.2	458.	2500.	6.00	-1.04	-1.15	1.78	2.3	130.
2.5	500	2542	6.01	-0.29	-1.15	1.78	1.7	135.
4.9	958.	3006.	2.20	-3.80	-1.97	0.96	4.4	126.
10.4	1958.	4000.	-2.50	-4.70	-1.97	0.96	4.4	184.
15.9	2958.	5000.	-10.20	-7.70	-2.79	0.14		

COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2248  
 DATE 05/06/76      TIME 12:30MST      ASCENT RATE 600 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	-0.0	2.6	2.6	180.
0.5	91.	2133.	-2.8	0.9	2.9	109.
1.0	226.	2268.	-5.4	1.7	5.7	108.
1.5	324.	2366.	-2.1	2.5	3.3	139.
2.0	417.	2459.	-2.4	1.7	2.9	125.
2.5	500.	2551.	-1.1	1.1	1.5	130.
3.0	600.	2642.	-1.4	-0.6	1.6	67.
3.5	691.	2733.	-0.6	0.1	0.6	101.
4.0	783.	2825.	-1.3	0.3	1.3	101.
4.5	876.	2918.	-2.2	0.1	2.2	92.
5.0	967.	3009.	-3.5	3.0	4.6	130.
5.5	1059.	3101.	-2.2	2.8	3.6	141.
6.0	1150.	3192.	3.7	1.5	4.0	248.
6.5	1242.	3284.	1.8	0.3	1.8	261.
7.0	1333.	3375.	2.2	1.3	2.6	240.
7.5	1425.	3467.	0.5	1.8	1.8	195.
8.0	1516.	3558.	1.3	3.7	3.9	200.
8.5	1608.	3650.	1.5	5.7	5.9	195.
9.0	1699.	3741.	-0.3	5.7	5.7	177.
9.5	1790.	3832.	-0.4	6.9	6.9	176.
10.0	1882.	3924.	0.8	4.4	4.5	190.
10.5	1973.	4015.	0.3	4.4	4.4	183.
11.0	2065.	4107.	0.7	3.7	3.8	191.
11.5	2156.	4198.	-1.0	4.6	4.7	168.
12.0	2248.	4290.	-0.8	4.8	4.9	170.





COL CR TRACT

FLEV 2042 METERS

SOUNDING ID 2247

DATE 05/08/76

TIME 06:10MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.00		0.0		2.6	225.
0.6	150	2192	6.38	-7.62	-8.20	-5.27		
0.9	300	2342	5.10	-1.20	-5.74	-2.81		
1.3	458.	2500.	3.57	-1.62	-3.28	-0.35		
1.4	500	2542.	2.53	-0.04	-3.28	-0.35		
3.8	958.	3000.	0.41	-3.12	-2.30	0.63		
9.3	1958.	4000.	-6.90	-7.31	-3.44	-0.52		

COL CR TRACT

FLEV 2042 METERS

SOUNDING ID 2247

DATE 05/08/76

TIME 06:10MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	1.8	1.8	2.6	225.





COL CB TRACT

FIFV 2042 METERS

SOUNDING ID 2249

DATE 05/08/76

TIME 12:36MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		4.80		0.0		1.0	225.
0.8	150	2192	2.58	-1.92	-2.13	0.80		
1.6	300	2342	2.50	-0.38	-0.82	2.11		
2.5	458.	2500.	1.80	-0.70	-2.46	0.47		
2.7	500	2542	1.31	-0.50	-1.64	1.29		
5.2	958.	3000.	-1.80	-3.11	-1.15	1.78		
10.7	1958.	4000.	-8.50	-6.70	-2.13	0.80		
16.1	2958.	5000.	-16.20	-7.70	-2.95	-0.02		
21.5	3958.	6000.	-24.20	-8.00	-3.61	-0.68		

COL CB TRACT

FLEV 2042 METERS

SOUNDING ID 2249

DATE 05/08/76

TIME 12:36MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.7	0.7	1.0	225.



COL CR TRACT

ELEV 2042 METERS

SOUNDING ID 2251

DATE 05/10/76

TIME 06:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.00		0.0		0.0	0.
0.8	150	2192	10.20	0.20	-0.82	2.11	0.8	136.
1.6	300	2342	9.52	-0.68	-2.13	0.80	2.8	130.
2.5	450	2500	7.80	-1.47	-2.13	0.80	3.0	106.
2.7	500	2542	7.82	-0.23	-2.13	0.80	2.5	103.
5.2	950	3000	4.50	-3.02	-2.46	0.47	1.2	112.
10.6	1958	4000	-2.50	-7.30	-1.64	1.29	1.9	227.
15.8	2958	5000	-10.79	-8.30	-3.77	-0.84		
21.0	3958	6000	-17.80	-7.00	-2.13	0.80		

COL CR TRACT

ELEV 2042 METERS

SOUNDING ID 2251

DATE 05/10/76

TIME 06:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.
0.5	91.	2133.	-0.2	0.4	0.4	154.
1.0	183.	2225.	-0.8	0.6	1.0	126.
1.5	274.	2316.	-1.9	1.8	2.6	133.
2.0	360.	2406.	-2.8	1.8	3.3	122.
2.5	457.	2499.	-2.9	0.8	3.0	106.
3.0	549.	2591.	-1.9	0.3	2.0	100.
3.5	640.	2682.	-1.8	0.1	1.8	95.
4.0	732.	2774.	-1.7	-0.7	1.8	67.
4.5	823.	2865.	-1.8	-0.6	1.9	71.
5.0	919.	2961.	-1.5	-0.5	1.6	72.
5.5	1010.	3052.	-0.2	0.7	0.8	164.
6.0	1102.	3144.	0.2	1.4	1.4	190.
6.5	1193.	3235.	0.2	1.3	1.3	190.
7.0	1284.	3326.	0.1	0.5	0.6	191.
7.5	1370.	3418.	-0.8	0.4	0.9	118.
8.0	1467.	3509.	0.4	1.0	1.1	203.
8.5	1567.	3609.	0.2	1.3	1.3	190.
9.0	1659.	3701.	0.4	0.9	1.0	204.
9.5	1750.	3792.	0.6	2.2	2.3	195.
10.0	1842.	3884.	1.3	2.0	2.4	213.
10.5	1933.	3975.	1.7	1.5	2.3	227.
11.0	2024.	4066.	0.7	0.7	1.0	226.
11.5	2116.	4158.	1.1	0.5	1.2	246.
12.0	2207.	4249.	1.4	0.5	1.5	251.
12.5	2299.	4341.	0.0	0.4	1.0	247.
13.0	2390.	4432.	1.3	0.5	1.4	249.



COL CR TRACT

FLEV 2042 METERS

SOUNDING ID 2253

DATE 05/10/76

TIME 12:30MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SEC		15.30		0.0		0.0	0.
0.7	150	2192	13.02	-2.28	-6.30	-3.37	0.6	280.
1.2	300	2342	11.53	-1.49	-6.69	-3.76	1.0	305.
1.7	458.	2500.	8.80	-1.97	-5.90	-2.98	1.5	336.
1.8	500	2542.	8.89	-0.67	-5.90	-2.98	1.7	341.
3.4	958.	3000.	4.90	-3.98	-3.94	-1.01	0.5	60.
8.3	1958.	4000.	-5.50	-10.40	-4.33	-1.40	4.2	198.
13.0	2958.	5000.	-10.20	-8.81	-3.01	-1.01		
18.5	3958.	6000.	-23.50	-9.20	-5.31	-2.39		

COL CR TRACT

FLEV 2042 METERS

SOUNDING ID 2253

DATE 05/10/76

TIME 12:30MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.
0.5	76.	2118.	0.4	-0.0	0.4	272.
1.0	234.	2276.	0.9	-0.3	0.9	290.
1.5	401.	2443.	0.6	-1.0	1.1	329.
2.0	574.	2616.	0.4	-2.1	2.2	350.
2.5	724.	2766.	-0.0	-1.6	1.6	1.
3.0	866.	2908.	-0.1	-0.2	0.2	22.
3.5	988.	3030.	-0.6	-0.2	0.7	72.
4.0	1101.	3143.	-0.1	-0.2	0.3	34.
4.5	1241.	3283.	0.6	-0.7	1.0	318.
5.0	1368.	3410.	0.7	-0.0	0.7	273.
5.5	1473.	3515.	0.2	-0.2	0.3	316.
6.0	1561.	3603.	1.1	-0.8	1.4	307.
6.5	1641.	3683.	0.5	-0.8	1.0	327.
7.0	1729.	3771.	2.1	-8.4	8.7	194.
7.5	1809.	3851.	-1.6	1.6	2.2	135.
8.0	1893.	3935.	1.5	3.5	3.9	203.
8.5	2008.	4050.	1.1	4.4	4.5	194.
9.0	2123.	4165.	1.8	3.5	3.9	207.
9.5	2252.	4294.	1.3	2.6	2.9	208.
10.0	2402.	4444.	1.7	3.0	3.5	209.
10.5	2520.	4562.	1.2	2.5	2.8	206.
11.0	2627.	4669.	0.9	2.2	2.3	202.
11.5	2728.	4770.	0.7	1.9	2.0	200.
12.0	2804.	4846.	0.7	0.8	1.1	222.





COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2250

DATE 05/12/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SEC		3.30		0.0		0.0	0.
0.8	150	2192	1.89	-1.41	-2.95	-0.02	1.0	13.
1.6	300	2342	0.71	-1.18	-2.30	-0.63	1.2	112.
2.5	458.	2500.	-1.60	-1.76	-3.28	-0.35	2.6	359.
2.7	500	2542.	-1.56	-0.51	-3.28	-0.35	3.1	357.
4.8	958.	3000.	-6.00	-4.43	-4.10	-1.17	7.4	321.
9.4	1958.	4000.	-13.50	-7.51	-3.44	-0.52	16.6	320.
14.8	2958.	5000.	-21.20	-7.70	-1.64	1.29		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2250

DATE 05/12/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.
0.5	91.	2133.	-0.4	-0.9	0.9	23.
1.0	183.	2225.	-0.1	-1.1	1.1	8.
1.5	274.	2316.	-0.3	-0.8	0.8	18.
2.0	366.	2408.	0.3	-2.0	2.0	350.
2.5	457.	2499.	0.0	-2.5	2.5	359.
3.0	549.	2591.	0.3	-3.8	3.8	355.
3.5	646.	2686.	1.9	-4.7	5.0	338.
4.0	752.	2794.	3.5	-3.0	4.6	310.
4.5	882.	2924.	4.4	-4.5	6.3	316.
5.0	1004.	3046.	4.7	-6.6	8.1	324.
5.5	1124.	3166.	4.4	-6.8	8.1	327.
6.0	1274.	3316.	5.4	-8.2	9.8	327.
6.5	1404.	3446.	5.0	-7.9	9.3	326.
7.0	1502.	3544.	6.8	-8.9	11.2	323.
7.5	1598.	3640.	7.3	-8.9	11.5	321.
8.0	1690.	3732.	9.2	-10.8	14.3	320.
8.5	1781.	3823.	9.3	-10.1	13.7	317.
9.0	1872.	3914.	13.0	-13.2	18.5	316.
9.5	1971.	4013.	10.3	-12.6	16.3	321.
10.0	2069.	4111.	11.5	-14.4	18.5	321.
10.5	2160.	4202.	11.0	-13.9	17.7	322.
11.0	2252.	4294.	10.4	-13.0	16.7	321.
11.5	2343.	4385.	20.9	-6.6	21.9	288.
12.0	2435.	4477.	-0.6	-16.0	16.0	2.





COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2254

DATE 05/12/76

TIME 13:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		3.20		0.0		7.7	360.
0.7	150	2192	1.04	-2.16	-3.94	-1.01	4.1	321.
1.2	300	2342	-0.85	-1.89	-3.61	-0.68	4.6	333.
1.8	450	2500	-2.20	-1.31	-3.61	-0.68	3.2	355.
2.0	500	2542	-2.93	-0.77	-4.10	-1.17	3.6	355.
3.7	958	3000	-8.20	-4.55	-5.25	-2.32	7.2	337.
8.4	1958	24000	-15.00	-7.52	-0.98	1.94	4.5	308.
13.9	2458	5000	-19.80	-4.80	-3.44	-0.52		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2254

DATE 05/12/76

TIME 13:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	H-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	-7.7	7.7	360.
0.5	91.	2133.	2.1	-2.5	3.3	320.
1.0	256.	2298.	3.4	-4.5	5.6	323.
1.5	384.	2426.	0.4	-2.8	2.8	352.
2.0	491.	2533.	0.2	-3.4	3.4	356.
2.5	604.	2646.	1.0	-5.3	5.7	340.
3.0	721.	2763.	1.7	-5.6	5.9	344.
3.5	889.	2931.	2.4	-6.0	6.5	339.
4.0	1071.	3113.	3.5	-7.7	8.5	335.
4.5	1214.	3256.	3.8	-6.3	7.4	329.
5.0	1317.	3359.	1.7	-5.4	5.6	342.
5.5	1415.	3457.	4.5	-5.4	7.0	320.
6.0	1511.	3553.	3.4	-5.6	6.5	329.
6.5	1602.	3644.	3.8	-6.2	7.3	328.
7.0	1694.	3736.	3.8	-4.5	5.9	320.
7.5	1785.	3827.	3.8	-2.9	4.8	307.
8.0	1877.	3919.	3.6	-4.1	5.5	318.
8.5	1968.	4010.	3.5	-2.6	4.4	306.
9.0	2059.	4101.	5.0	-3.4	6.0	304.
9.5	2151.	4193.	5.9	-8.1	10.0	324.
10.0	2242.	4284.	6.6	-7.7	10.1	319.
10.5	2334.	4376.	7.4	-8.1	11.0	317.



COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2252

DATE 05/14/76 TIME 05:45MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	O/T STD	O/T 300M	O/T LAPSE	WS M/S	WD DEG
0.8	SFC	2192	19.20	.	0.0		0.0	0.
1.6	150	2342	18.34	-0.86	-2.46	0.47	2.8	177.
2.4	300	2500.	16.84	-1.50	-2.46	0.47	2.8	210.
2.6	458.	2500.	15.70	-1.14	-2.30	0.63	3.4	225.
2.6	500.	2542.	15.03	-0.68	-3.12	-0.19	3.0	237.
5.1	958.	3000.	11.70	-3.12	-2.79	0.14	2.3	244.
10.5	1958.	4000.	3.30	-7.90	-2.46	0.47	3.3	308.
16.0	2958.	5000.	-3.20	-7.21	-3.61	-0.68		
21.2	3958.	6000.	-11.80	-8.60	-2.30	0.63		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2252

DATE 05/14/76 TIME 05:45MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.
0.5	91.	2133.	0.6	2.4	2.5	193.
1.0	183.	2225.	-0.6	2.9	3.0	168.
1.5	284.	2326.	1.1	2.3	2.5	206.
2.0	384.	2426.	3.0	2.7	4.0	229.
2.5	475.	2517.	2.3	2.3	3.3	225.
3.0	566.	2608.	2.4	0.1	2.4	269.
3.5	660.	2702.	1.9	2.9	3.4	213.
4.0	751.	2793.	3.4	2.7	4.3	231.
4.5	843.	2885.	2.5	1.5	2.9	239.
5.0	934.	2976.	1.9	1.0	2.1	241.
5.5	1025.	3067.	2.7	0.9	2.8	251.
6.0	1117.	3159.	2.8	1.0	3.0	250.
6.5	1208.	3250.	2.4	1.1	2.7	245.
7.0	1300.	3342.	3.5	1.5	3.8	247.
7.5	1391.	3433.	1.4	-0.1	1.4	274.
8.0	1483.	3525.	2.7	0.3	2.7	264.
8.5	1574.	3616.	2.3	0.7	2.4	254.
9.0	1670.	3712.	2.1	0.2	2.1	264.
9.5	1761.	3803.	2.4	-0.5	2.4	282.
10.0	1857.	3899.	2.5	-1.8	3.1	306.
10.5	1950.	3992.	2.6	-2.0	3.3	308.
11.0	2042.	4084.	2.9	-3.0	4.1	316.
11.5	2133.	4175.	1.6	-1.0	1.9	301.
12.0	2224.	4266.	3.2	-4.7	5.6	326.



COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2255

TE 05/14/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		21.00		0.0		1.5	225.
0.8	150	2192	19.54	-1.46	-2.46	0.47	1.7	184.
1.6	300	2342	18.61	-0.92	-0.66	2.27	1.8	185.
2.5	450	2500	18.00	-0.30	-1.64	1.29	1.6	187.
2.7	500	2542	18.03	-0.28	-1.64	1.29	2.6	186.
5.2	958	3000	13.70	-3.62	-4.43	-1.50	5.1	183.
9.2	1958	4000	3.80	-10.10	-3.61	-0.68	6.2	282.
14.6	2958	5000	-2.99	-7.29	-3.28	-0.35		
18.8	3958	6000	-12.99	-10.00	-4.10	-1.17		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2255

TE 05/14/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042	1.1	1.1	1.5	225.
0.5	91.	2133	-0.4	1.6	1.7	165.
1.0	183.	2225	0.5	1.7	1.8	195.
1.5	274.	2316	0.0	1.5	1.5	181.
2.0	366.	2408	0.7	2.4	2.5	197.
2.5	457.	2499	0.2	1.6	1.6	187.
3.0	549.	2591	0.4	3.7	3.7	186.
3.5	640.	2682	-0.6	6.7	6.7	175.
4.0	732.	2774	-0.6	5.4	5.5	174.
4.5	831.	2873	-1.1	4.6	4.7	166.
5.0	929.	2971	0.1	5.1	5.1	181.
5.5	1025	3067	0.8	5.0	5.1	189.
6.0	1170	3212	1.2	7.0	7.1	190.
6.5	1335	3377	1.7	7.2	7.4	193.
7.0	1495	3537	2.5	5.8	6.3	203.
7.5	1627	3609	3.0	6.4	7.1	205.
8.0	1724	3766	4.4	4.1	6.0	227.
8.5	1816	3858	4.8	5.9	7.6	219.
9.0	1912	3954	7.1	-1.4	7.2	281.
9.5	2009	4051	5.0	-1.2	5.1	284.
0.0	2114	4156	4.9	-2.0	5.3	293.
0.5	2206	4248	4.5	-2.4	5.1	298.
1.0	2297	4339	3.1	-1.1	3.3	289.
1.5	2388	4430	1.8	0.5	1.9	254.
2.0	2480	4522	1.3	1.4	1.9	222.





COL CB TRACT ELEV 2042 METERS SOUNDING ID 2130  
 DATE 05/18/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC	.	16.50		0.0		2.6	270.
1.6	150	2192	15.05	-1.45	-2.30	0.63	3.7	198.
2.5	300	2342	14.03	-1.02	-2.13	0.80	5.1	213.
2.7	458.	2500.	12.00	-1.19	-2.46	0.47	6.5	233.
5.1	500	2542.	12.07	-0.76	-2.46	0.47	6.6	229.
9.7	958.	3000.	7.70	-3.95	-3.77	-0.84	6.0	229.
15.0	1958.	4000.	-1.80	-9.62	-2.79	0.14	7.1	242.
	2958.	5000.	-10.00	-8.50	-3.28	-0.35		

COL CB TRACT ELEV 2042 METERS SOUNDING ID 2130  
 DATE 05/18/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	2.6	0.0	2.6	270.
0.5	91.	2133.	1.0	3.5	3.7	196.
1.0	183.	2225.	1.2	3.4	3.7	200.
1.5	274.	2316.	2.0	3.6	4.1	209.
2.0	366.	2408.	5.0	5.6	7.5	222.
2.5	457.	2499.	5.2	5.9	6.5	233.
3.0	550.	2592.	4.7	4.8	6.7	225.
3.5	642.	2684.	4.1	4.2	5.8	225.
4.0	738.	2780.	5.4	4.6	7.1	229.
4.5	853.	2895.	5.8	5.5	8.0	226.
5.0	944.	2986.	4.4	3.9	5.9	228.
5.5	1045.	3087.	5.2	4.0	6.6	233.
6.0	1155.	3197.	5.2	4.8	7.1	227.
6.5	1267.	3309.	4.9	4.0	6.4	231.
7.0	1397.	3439.	5.5	4.3	7.0	233.
7.5	1537.	3579.	6.0	5.4	8.1	228.
8.0	1640.	3682.	4.6	3.6	5.9	232.
8.5	1736.	3778.	5.1	3.0	5.9	240.
9.0	1832.	3874.	5.3	2.7	6.0	243.
9.5	1923.	3965.	6.5	2.4	7.0	249.
10.0	2019.	4061.	5.6	2.7	7.3	230.
10.5	2110.	4152.	8.4	2.2	8.7	255.
11.0	2202.	4244.	6.9	3.2	8.7	233.
11.5	2293.	4335.	6.4	3.3	8.4	230.
12.0	2385.	4427.	6.6	3.5	8.6	230.
12.5	2485.	4527.	6.6	3.6	8.8	230.





COL CB TRACT

FLYV 2042 METERS

SOUNDING ID 2131

TE 05/18/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		20.50		0.0		5.1	270.
0.8	150.	2192.	18.87	-1.63	-2.62	0.30	5.5	199.
1.6	300.	2342.	17.92	-0.95	-3.77	-0.84	8.0	198.
2.4	458.	2500.	15.90	-1.96	-3.44	-0.52	9.1	194.
2.5	500.	2542.	15.35	-0.62	-3.04	-1.01	9.0	194.
4.4	958.	3000.	11.10	-4.23	-3.44	-0.52	6.7	199.
8.4	1958.	4000.	1.10	-10.00	-4.26	-1.34	6.7	214.
13.2	2958.	5000.	-6.80	-7.91	-3.40	-0.52		
18.2	3958.	6000.	-15.80	-9.00	-2.95	-0.02		

COL CB TRACT

FLYV 2042 METERS

SOUNDING ID 2131

TE 05/18/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	5.1	0.0	5.1	270.
0.5	91.	2133.	1.6	5.9	6.1	195.
1.0	183.	2225.	1.9	4.8	5.1	202.
1.5	274.	2316.	2.6	7.2	7.6	200.
2.0	366.	2408.	2.1	8.7	9.0	194.
2.5	458.	2500.	2.3	8.8	9.1	195.
3.0	550.	2592.	0.8	7.4	7.4	186.
3.5	642.	2684.	1.8	3.3	3.8	209.
4.0	734.	2776.	1.1	6.8	6.9	189.
4.5	826.	2868.	2.3	6.2	6.6	201.
5.0	918.	2960.	2.3	6.3	6.7	200.
5.5	1010.	3052.	2.2	3.9	4.5	209.
6.0	1102.	3144.	2.6	3.8	4.6	214.
6.5	1194.	3236.	3.1	5.1	5.0	212.
7.0	1286.	3328.	3.3	3.1	4.5	227.
7.5	1378.	3420.	3.4	2.9	4.5	230.
8.0	1470.	3512.	4.1	5.8	7.1	215.
8.5	1562.	3604.	3.7	5.5	6.6	214.
9.0	1654.	3696.	4.0	7.0	8.5	215.
9.5	1746.	3788.	6.3	9.9	11.7	213.
10.0	1838.	3880.	5.3	4.8	7.2	228.
10.5	1930.	3972.	4.8	5.8	7.5	219.



COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2173  
 DATE 05/20/76    TIME 12:30MST    ASCENT RATE 600 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		10.00		0.0		0.0	0.
1.6	150	2192	8.81	-1.19	-2.30	0.63		
2.5	300	2342	7.53	-1.28	-2.79	0.14		
3.7	450	2500.	6.22	-1.31	-2.13	0.80		
5.2	600	2542	6.20	-0.02	-2.13	0.80		
6.7	750	3000.	2.60	-3.60	-1.97	0.96		
10.7	1950.	4000.	-2.70	-5.30	-1.64	1.29		
16.2	2950.	5000.	-8.70	-6.00	-3.61	-0.68		
21.2	3950.	6000.	-17.70	-9.00	-1.80	1.12		

COL CB TRACT      ELEV 2042 METERS      SOUNDING ID 2173  
 DATE 05/20/76    TIME 12:30MST    ASCENT RATE 600 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.



COL CR TRACT FLEV 2042 METERS SOUNDING ID 2175  
 DATE 05/22/76 TIME 06:00NST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		11.00		0.0		2.6	270.
0.8	150	2192	9.40	-1.60	-2.62	0.30	4.0	201.
1.6	300	2342	8.23	-1.17	-2.62	0.30	7.2	208.
2.5	458.	2500.	7.00	-1.23	-2.46	0.47	6.4	227.
2.7	500	2542	6.80	-0.20	-1.64	1.29	7.2	235.
5.2	958.	3000.	3.20	-3.00	-2.46	0.47	5.8	241.
10.7	1958.	4000.	-3.70	-7.50	-2.46	0.47		
15.8	2958.	5000.	-11.19	-7.49	-4.50	-1.66		

COL CR TRACT FLEV 2042 METERS SOUNDING ID 2175  
 DATE 05/22/76 TIME 06:00NST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	H-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	2.6	0.0	2.6	270.
0.5	91.	2133.	1.1	3.0	3.2	200.
1.0	187.	2229.	1.7	4.2	4.5	202.
1.5	279.	2321.	3.5	6.6	7.5	208.
2.0	370.	2412.	3.1	5.7	6.5	208.
2.5	461.	2503.	4.7	4.3	6.4	228.
3.0	553.	2595.	7.6	3.6	8.4	244.
3.5	644.	2686.	5.0	4.7	7.6	232.
4.0	736.	2778.	5.1	3.2	6.0	238.
4.5	827.	2869.	6.7	0.8	6.7	263.
5.0	919.	2961.	5.0	2.0	5.8	240.
5.5	1010.	3052.	5.1	2.7	5.8	242.
6.0	1102.	3144.	7.2	0.8	7.3	264.
6.5	1193.	3235.	5.0	0.2	5.0	268.
7.0	1284.	3326.	10.3	2.0	10.5	259.
7.5	1376.	3418.	6.4	1.1	6.5	260.
8.0	1467.	3509.	7.1	0.6	7.2	266.
8.5	1559.	3601.	5.0	0.9	6.0	261.
9.0	1650.	3692.	5.6	0.3	5.6	267.





COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2174

DATE 05/22/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC		9.30		0.0		6.2	270.
1.6	150	2192	7.40	-1.90	-2.79	0.14	2.8	189.
2.5	300	2342	6.21	-1.18	-2.62	0.30	4.9	200.
3.4	458.	2500.	4.80	-1.41	-2.30	0.63	4.5	213.
4.3	500	2542.	4.50	-0.30	-1.97	0.96	4.6	217.
5.2	958.	3000.	1.00	-3.20	-2.46	0.47	6.6	248.
10.7	1958.	4000.	-6.70	-7.60	-2.79	0.14	7.2	272.
16.0	2958.	5000.	-15.29	-6.99	-4.59	-1.66		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 2174

DATE 05/22/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	6.2	0.0	6.2	270.
0.5	91.	2133.	1.5	4.8	5.1	197.
1.0	187.	2229.	0.1	1.4	1.4	183.
1.5	279.	2321.	1.6	4.5	4.7	199.
2.0	370.	2412.	2.0	4.9	5.3	202.
2.5	461.	2503.	2.5	3.7	4.4	214.
3.0	553.	2595.	3.1	3.6	4.8	221.
3.5	644.	2686.	4.8	3.7	6.1	232.
4.0	736.	2778.	4.5	2.6	5.2	240.
4.5	827.	2869.	6.4	1.8	6.6	254.
5.0	919.	2961.	5.6	2.7	6.2	244.
5.5	1010.	3052.	6.7	2.1	7.0	253.
6.0	1102.	3144.	6.3	1.5	6.4	259.
6.5	1193.	3235.	6.8	0.6	6.8	265.
7.0	1284.	3326.	7.1	-0.0	7.1	270.
7.5	1376.	3418.	5.9	0.1	5.9	270.
8.0	1467.	3509.	5.7	0.9	5.8	261.
8.5	1559.	3601.	5.8	0.8	5.8	262.
9.0	1650.	3692.	5.9	0.5	6.0	266.
9.5	1742.	3784.	6.2	-0.1	6.2	271.
10.0	1833.	3875.	6.3	0.6	6.3	265.
10.5	1925.	3967.	6.5	0.2	6.5	268.
11.0	2016.	4058.	8.1	-1.2	8.2	279.
11.5	2107.	4149.	6.9	-0.5	6.9	274.
12.0	2199.	4241.	6.1	0.4	6.1	267.
12.5	2290.	4332.	6.9	-0.1	6.9	271.





COL CB TRACT FLEV 2042 METERS SOUNDING ID 2177  
TE 05/24/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC	.	17.00		0.0		M	M
0.8	150	2192	15.31	-1.69	-2.46	0.47	2.2	63.
1.6	300	2342	14.91	-0.40	-3.61	-0.68	1.6	50.
2.3	458.	2500.	12.80	-2.05	-3.77	-0.84	1.3	64.
2.5	500	2542	12.26	-0.60	-4.26	-1.34	1.3	54.
4.6	958.	3000.	8.80	-3.25	-1.97	0.96	1.8	167.
10.0	1958.	4000.	1.00	-7.50	-2.70	0.14	0.9	181.

COL CB TRACT FLEV 2042 METERS SOUNDING ID 2177  
TE 05/24/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
THE WIND DATA ARE MISSING						
0.5	91.	2133.	-2.2	-0.5	2.2	78.
1.0	183.	2225.	-1.8	-1.2	2.1	55.
1.5	274.	2316.	-1.1	-1.3	1.7	38.
2.0	378.	2420.	-1.3	-0.2	1.3	83.
2.5	500.	2542.	-1.0	-0.8	1.3	54.
3.0	632.	2674.	-2.3	2.3	3.3	135.
3.5	755.	2797.	-1.7	0.5	1.7	108.
4.0	856.	2898.	-0.3	1.5	1.6	168.
4.5	947.	2989.	-0.4	1.5	1.6	165.
5.0	1039.	3081.	-0.2	3.7	3.7	182.
5.5	1130.	3172.	-0.7	3.9	4.0	169.
6.0	1221.	3263.	-0.4	2.9	3.0	189.
6.5	1313.	3355.	-0.3	3.6	3.7	185.
7.0	1404.	3446.	-0.3	0.9	0.9	162.
7.5	1496.	3538.	1.0	1.2	1.6	221.
8.0	1587.	3629.	0.5	1.1	1.2	203.
8.5	1680.	3722.	-0.0	0.6	0.6	180.
9.0	1772.	3814.	0.1	0.4	0.4	188.
9.5	1863.	3905.	-1.1	2.9	3.1	160.
0.0	1955.	3997.	-0.0	0.9	0.9	180.
0.5	2046.	4088.	0.6	1.5	1.6	203.
1.0	2138.	4180.	-0.7	4.7	4.7	172.
1.5	2231.	4273.	0.7	2.8	2.9	194.
2.0	2326.	4368.	0.1	2.7	2.7	181.
2.5	2421.	4463.	1.1	2.7	2.9	202.
3.0	2516.	4558.	1.1	0.4	1.2	252.



COL CR TRACT FLEV 2042 METERS SOUNDING ID 2172  
 DATE 05/24/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.20		0.0		M	M
0.8	150	2192	8.30	-1.90	-2.05	-0.02	2.1	71.
1.6	300	2342	6.84	-1.46	-2.70	-0.14	1.8	53.
2.4	458.	2500.	5.50	-1.33	-2.30	-0.63	2.4	45.
2.7	500	2542	5.01	-0.50	-2.95	-0.02	2.1	53.
4.7	958.	3000.	-0.10	-4.61	-4.43	-1.50	2.8	130.
6.6	1958.	4000.					3.9	174.
12.0	2958.	5000.					3.4	240.

COL CR TRACT FLEV 2042 METERS SOUNDING ID 2172  
 DATE 05/24/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
THE WIND DATA ARE MISSING						
0.5	91.	2133.	-2.2	-0.5	2.2	78.
1.0	187.	2220.	-1.0	-0.8	2.0	66.
1.5	280.	2322.	-1.4	-1.1	1.8	53.
2.0	376.	2418.	-1.3	-1.0	1.7	51.
2.5	468.	2510.	-1.7	-1.8	2.5	45.
3.0	561.	2603.	-1.4	-0.5	1.5	69.
3.5	656.	2698.	-1.1	0.1	1.1	98.
4.0	784.	2826.	-0.6	-0.6	0.9	41.
4.5	911.	2953.	-2.4	2.6	3.5	138.
5.0	1016.	3058.	-1.7	1.0	1.9	121.
5.5	1144.	3186.	-1.6	1.0	1.9	121.
6.0	1276.	3318.	-0.2	2.3	2.3	175.
6.5	1379.	3421.	-0.3	1.1	1.1	164.
7.0	1509.	3551.	-0.8	3.7	3.7	168.
7.5	1647.	3689.	-0.5	3.7	3.8	172.
8.0	1774.	3816.	-1.0	3.0	3.2	161.
8.5	1919.	3961.	-0.6	3.5	3.5	171.
9.0	2069.	4111.	-0.3	5.1	5.1	183.
9.5	2219.	4261.	3.0	6.3	7.4	212.
10.0	2369.	4411.	0.6	1.7	1.8	199.
10.5	2519.	4561.	1.5	1.4	2.1	228.
11.0	2669.	4711.	0.6	1.3	1.4	205.
11.5	2819.	4861.	0.9	2.2	2.4	201.
12.0	2969.	5011.	3.1	1.6	3.4	243.
12.5	3119.	5161.	0.7	1.0	1.3	215.



COL CB TRACT ELEV 2042 METERS SOUNDING ID 2171  
 TE 05/26/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC	2192	7.00		0.0		0.0	0.
1.6	150	2342	5.04	-1.96	-2.46	0.47	0.6	218.
2.5	300	2500.	4.21	-0.83	-1.97	0.96	0.8	154.
2.7	458.	2500.	3.10	-1.11	-1.64	1.29	3.3	55.
5.2	500	2542.	3.00	-0.10	-1.97	0.96	2.8	39.
7.5	958.	3000.	-0.50	-3.00	-3.28	-0.35	5.9	22.
8.3	*1402	3444	-3.40		2.13	5.06		
10.5	*1540	3582	-1.50		1.15	4.08		
15.4	1958.	4000.	-3.70	-3.50	-1.48	1.45	4.5	342.
21.2	2958.	5000.	-11.40	-7.90	-2.62	0.30		
	3958.	6000.	-20.00	-8.60	-2.13	0.80		

COL CB TRACT ELEV 2042 METERS SOUNDING ID 2171  
 TE 05/26/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	0.0	0.0	0.0	0.
0.5	91.	2133.	0.3	0.5	0.6	206.
1.0	187.	2229.	0.5	0.4	0.6	225.
1.5	279.	2321.	0.0	0.2	0.6	182.
2.0	370.	2412.	-2.2	-1.2	2.5	61.
2.5	461.	2503.	-2.7	-1.9	3.3	54.
3.0	553.	2595.	-0.7	-2.1	2.2	18.
3.5	644.	2686.	-1.6	-4.4	4.6	20.
4.0	736.	2778.	-1.2	-4.7	4.9	14.
4.5	827.	2869.	-0.9	-7.3	7.3	7.
5.0	919.	2961.	-1.9	-5.0	5.4	21.
5.5	1010.	3052.	-2.7	-6.1	6.6	24.
6.0	1110.	3152.	-1.0	-6.6	6.9	8.
6.5	1220.	3262.	-1.9	-10.6	10.8	10.
7.0	1311.	3353.	-1.0	-7.0	7.1	8.
7.5	1403.	3445.	-1.4	-6.1	6.2	13.
8.0	1494.	3536.	-3.5	-4.7	5.8	36.
8.5	1586.	3628.	1.3	-4.9	5.1	346.
9.0	1677.	3719.	-1.4	-3.2	3.5	23.
9.5	1769.	3811.	1.3	-2.6	2.9	334.
10.0	1860.	3902.	0.9	-3.6	3.7	347.
10.5	1952.	3994.	1.3	-4.2	4.4	343.
11.0	2043.	4085.	2.0	-5.3	5.6	340.
11.5	2134.	4176.	2.1	-5.6	6.0	340.
12.0	2226.	4268.	3.2	-6.2	7.0	332.





COL CB TRACT ELEV 2042 METERS SOUNDING ID 2178  
 TE 05/26/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		13.60		0.0		2.6	320.
0.8	150	2192	11.91	-1.69	-2.46	0.47	2.6	274.
1.6	300	2342	11.03	-0.88	-2.30	0.63	1.9	262.
2.5	458.	2500.	9.20	-1.48	-2.46	0.47	0.5	245.
2.7	500	2542.	9.23	-0.32	-2.46	0.47	0.7	244.
5.2	958.	3000.	6.80	-2.23	-0.66	2.27	1.6	303.
10.7	1958.	4000.	2.60	-4.70	-0.49	2.44	1.8	10.
16.2	2958.	5000.	-2.60	-5.10	-2.46	0.47		

COL CB TRACT ELEV 2042 METERS SOUNDING ID 2178  
 TE 05/26/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	1.7	-2.0	2.6	320.
0.5	91.	2133.	2.5	-0.2	2.5	266.
1.0	183.	2225.	2.6	-0.4	2.6	279.
1.5	274.	2316.	2.1	0.3	2.1	262.
2.0	366.	2408.	1.3	0.2	1.3	262.
2.5	457.	2499.	0.4	0.2	0.5	245.
3.0	549.	2591.	0.8	0.4	0.9	242.
3.5	640.	2682.	0.9	0.8	1.2	231.
4.0	732.	2774.	1.0	0.4	1.0	249.
4.5	823.	2865.	2.1	0.4	2.2	259.
5.0	914.	2956.	1.3	-0.8	1.6	301.
5.5	1006.	3048.	1.3	-0.9	1.6	305.
6.0	1097.	3139.	0.8	-1.2	1.4	327.
6.5	1189.	3231.	0.1	-1.0	1.0	354.
7.0	1280.	3322.	0.7	-0.4	0.8	301.
7.5	1372.	3414.	0.4	-0.4	0.6	313.
8.0	1463.	3505.	1.2	-0.7	1.4	299.
8.5	1554.	3596.	0.7	-0.7	1.0	313.
9.0	1646.	3688.	0.5	-0.5	0.7	312.
9.5	1737.	3779.	-0.2	-1.3	1.4	7.
10.0	1829.	3871.	-0.3	-1.1	1.1	14.
10.5	1920.	3962.	-0.4	-1.8	1.8	12.
11.0	2012.	4054.	-0.2	-1.8	1.8	6.
11.5	2103.	4145.	-1.0	-2.0	2.2	27.
12.0	2195.	4237.	-1.1	-2.5	2.7	24.





COL CR TRACT

ELEV 2042 METERS

SOUNDING ID 1152

DATE 05/28/76

TIME 06:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		13.80		0.0		4.1	270.
0.8	150	2192	12.23	-1.57	-2.79	0.14	7.3	185.
1.6	300	2342	10.84	-1.38	-2.95	-0.02	11.6	198.
2.4	450	2500.	9.50	-1.33	-2.46	0.47	10.0	208.
2.7	500	2542	8.92	-0.59	-3.61	-0.68	9.6	211.
4.9	958.	3000.	4.20	-4.70	-3.77	-0.84	10.6	212.
9.7	1958.	4000.	-6.00	-10.19	-3.61	-0.68	9.9	238.
14.7	2958.	5000.	-15.00	-9.02	-2.62	0.30		
20.0	3958.	6000.	-23.79	-8.79	-2.30	0.63		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 1152

DATE 05/28/76

TIME 06:00MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	4.1	0.0	4.1	270.
0.5	91.	2133.	0.4	5.3	5.3	184.
1.0	183.	2225.	0.9	6.4	6.4	186.
1.5	279.	2321.	3.5	11.3	11.8	197.
2.0	379.	2421.	3.6	9.9	10.6	200.
2.5	472.	2514.	4.8	8.6	9.9	209.
3.0	563.	2605.	5.1	7.6	9.2	214.
3.5	668.	2710.	5.3	9.2	10.6	210.
4.0	773.	2815.	5.5	8.7	10.3	212.
4.5	876.	2918.	4.6	8.3	9.5	209.
5.0	988.	3030.	6.0	9.2	11.0	213.
5.5	1103.	3145.	6.8	7.7	10.3	221.
6.0	1206.	3248.	7.5	7.1	10.3	227.
6.5	1301.	3343.	6.6	5.2	8.4	232.
7.0	1401.	3443.	8.2	6.1	10.2	234.
7.5	1506.	3548.	7.9	5.8	9.8	234.
8.0	1598.	3640.	7.2	3.5	8.0	244.
8.5	1689.	3731.	9.0	3.0	9.4	252.
9.0	1794.	3836.	5.7	6.7	8.8	220.
9.5	1899.	3941.	8.1	4.7	9.4	240.
10.0	2019.	4061.	8.6	5.8	10.4	236.
10.5	2131.	4173.	8.1	5.2	9.6	237.
11.0	2227.	4269.	7.2	3.8	8.2	243.
11.5	2327.	4369.	7.0	5.8	9.1	230.
12.0	2437.	4479.	6.9	5.5	8.8	231.



COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 1643

DATE 05/28/76

TIME 12:30MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		18.70		0.0		5.1	270.
0.8	150	2192	16.32	-2.38	-2.30	0.63	8.3	205.
1.5	300	2342	15.12	-1.19	-1.97	0.96	6.0	187.
2.4	458.	2500.	14.10	-1.02	-1.64	1.29	9.6	194.
2.6	500.	2542.	13.72	-0.39	-2.62	0.30	10.3	194.
5.1	958.	3000.	9.50	-3.91	-3.44	-0.52	9.9	201.
10.5	1958.	4000.	1.70	-8.11	-3.28	-0.35	9.2	229.
15.6	2958.	5000.	-7.70	-8.40	-3.44	-0.52		
20.6	3958.	6000.	-16.60	-8.90	-1.80	1.12		

COL CB TRACT

ELEV 2042 METERS

SOUNDING ID 1643

DATE 05/28/76

TIME 12:30MST

ASCENT RATE 600 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	5.1	0.0	5.1	270.
0.5	91.	2133.	3.8	7.5	8.4	207.
1.0	202.	2244.	3.2	7.7	8.3	203.
1.5	294.	2336.	0.6	5.8	5.8	186.
2.0	385.	2427.	1.9	7.6	7.8	194.
2.5	476.	2518.	2.4	9.8	10.1	194.
3.0	568.	2610.	2.5	10.8	11.1	193.
3.5	659.	2701.	2.5	10.3	10.6	194.
4.0	751.	2793.	1.5	9.7	9.8	189.
4.5	842.	2884.	2.7	11.2	11.5	194.
5.0	934.	2976.	4.1	8.8	9.7	205.
5.5	1029.	3071.	1.9	10.6	10.7	190.
6.0	1134.	3176.	3.2	7.3	8.0	204.
6.5	1235.	3277.	1.6	6.3	6.5	194.
7.0	1320.	3368.	3.5	5.2	6.2	214.
7.5	1418.	3460.	1.4	7.7	7.8	190.
8.0	1509.	3551.	0.5	5.9	7.4	217.
8.5	1601.	3643.	4.9	4.7	6.8	226.
9.0	1692.	3734.	5.0	1.9	5.3	249.
9.5	1784.	3826.	7.8	2.0	8.1	255.
10.0	1875.	3917.	5.0	4.2	7.3	233.
10.5	1967.	4009.	7.0	6.3	9.4	228.
11.0	2067.	4109.	8.2	8.5	11.8	224.
11.5	2158.	4200.	4.4	0.3	4.4	267.
12.0	2249.	4291.	8.4	8.6	12.0	224.





COL CB TRACT ELEV 2042 METERS SOUNDING ID 1416  
 DATE 05/30/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.50		0.0		2.6	270.
0.8	150	2192	7.84	-0.66	-1.15	1.78	1.0	184.
1.6	300	2342	7.21	-0.63	-1.15	1.78	1.2	191.
2.5	450	2500.	6.20	-0.70	-1.31	1.62	1.3	219.
2.7	500	2542.	6.23	-0.28	-1.31	1.62	1.3	230.
5.2	958.	3000.	3.20	-2.93	-1.64	1.29	0.7	265.
10.7	1958.	4000.	-4.80	-7.80	-3.28	-0.35	0.2	267.
15.9	2958.	5000.	-13.80	-9.30	-1.97	0.96		
21.4	3958.	6000.	-18.00	-4.20	-0.82	2.11		

COL CB TRACT ELEV 2042 METERS SOUNDING ID 1416  
 TE 05/30/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	2.6	0.0	2.6	270.
0.5	91.	2133.	0.3	1.6	1.6	190.
1.0	183.	2225.	0.0	0.7	0.7	181.
1.5	274.	2316.	0.2	1.0	1.0	188.
2.0	366.	2408.	0.4	1.5	1.5	196.
2.5	457.	2499.	0.8	1.0	1.3	218.
3.0	549.	2591.	1.1	0.6	1.3	244.
3.5	640.	2682.	0.9	-0.1	1.0	276.
4.0	732.	2774.	0.6	-0.1	0.6	262.
4.5	823.	2865.	1.6	-0.0	1.6	272.
5.0	914.	2956.	1.0	0.1	1.0	263.
5.5	1006.	3048.	0.4	0.0	0.4	267.
6.0	1097.	3139.	0.6	0.2	0.7	253.
6.5	1189.	3231.	0.5	-0.1	0.6	284.
7.0	1280.	3322.	0.7	0.4	0.8	238.
7.5	1372.	3414.	0.6	0.8	1.0	217.
8.0	1463.	3505.	0.3	0.4	0.5	217.
8.5	1554.	3596.	0.4	0.4	0.6	229.
9.0	1646.	3688.	0.6	0.0	0.6	266.
9.5	1737.	3779.	0.1	0.0	0.1	250.
10.0	1829.	3871.	0.2	0.0	0.2	267.
10.5	1920.	3962.	0.2	0.0	0.2	263.
11.0	2012.	4054.	0.3	-0.0	0.3	272.



COL CB TRACT FLEV 2042 METERS SOUNDING ID 6760  
 DATE 05/30/76 TIME 12:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.00		0.0		2.6	225.
0.7	150.	2192.	12.02	-1.98	-3.44	-0.52	1.6	201.
1.3	300.	2342.	10.23	-1.79	-1.97	0.96	4.7	309.
2.2	458.	2500.	9.00	-1.01	-2.79	0.14	2.9	103.
2.4	500.	2542.	9.01	-0.22	-2.70	0.14	4.8	185.
4.9	958.	3000.	6.00	-3.00	-2.95	-0.02	4.1	218.
10.2	1958.	4000.	-1.90	-7.71	-2.46	-0.47	3.5	237.
15.2	2958.	5000.	-11.00	-9.30	-3.77	-0.84		
20.4	3958.	6000.	-19.10	-8.10	-0.82	2.11		

COL CB TRACT FLEV 2042 METERS SOUNDING ID 6760  
 DATE 05/30/76 TIME 12:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2042.	1.8	1.8	2.6	225.
0.5	91.	2133.	0.4	1.2	1.3	199.
1.0	229.	2271.	0.8	1.9	2.0	203.
1.5	334.	2376.	0.1	-5.9	5.9	359.
2.0	425.	2467.	-0.9	-1.1	1.4	39.
2.5	517.	2559.	3.4	4.3	5.5	218.
3.0	608.	2650.	1.7	1.9	2.6	221.
3.5	700.	2742.	1.2	1.9	2.2	214.
4.0	791.	2833.	1.0	1.9	2.1	209.
4.5	883.	2925.	1.4	2.1	2.6	213.
5.0	974.	3016.	2.8	3.4	4.4	219.
5.5	1065.	3107.	3.3	2.7	4.2	231.
6.0	1178.	3220.	3.2	3.1	4.5	226.
6.5	1269.	3311.	3.3	3.5	4.8	224.
7.0	1361.	3403.	3.6	3.2	4.9	228.
7.5	1452.	3494.	3.9	3.5	5.3	228.
8.0	1548.	3590.	3.3	2.7	4.2	231.
8.5	1639.	3681.	3.9	2.4	4.6	238.
9.0	1731.	3773.	4.6	2.6	5.3	241.
9.5	1826.	3868.	3.8	1.8	4.1	245.
0.0	1918.	3960.	2.9	1.7	3.4	240.
0.5	2009.	4051.	2.9	2.2	3.6	233.
1.0	2101.	4143.	3.7	2.1	4.2	241.
1.5	2192.	4234.	3.3	1.0	3.8	239.
2.0	2284.	4326.	2.9	2.1	3.6	234.
2.5	2389.	4431.	4.1	2.8	5.0	235.
3.0	2519.	4561.	4.1	3.4	5.3	231.
3.5	2618.	4660.	3.9	2.6	4.7	236.
4.0	2716.	4758.	3.1	2.6	4.1	230.
4.5	2809.	4851.	1.7	3.7	4.1	204.





MONTH: MAY

YEAR: 1976.

COL CB TRACT

ELEV 2042 METERS

HOLZWORTHIS CLASSIFICATION SCHEME FOR INVERSIONS  
MODIFIED TO SHOW TOTAL NUMBER INSTEAD OF PERCENT

THICKNESS (METERS)	1- 100	101- 250	251- 500	501- 750	751- 1000	1000- 1500	1501- 2000	2001- 2500	2501- 3000	TOTAL
1-100	3	0	0	0	0	0	0	0	0	3
101-250	0	0	0	0	0	0	0	0	0	0
251-500	0	0	0	0	0	0	0	0	0	0
501-750	0	0	0	0	0	0	0	0	0	0
751-1000	0	0	0	0	0	0	0	0	0	0
1001-1500	0	0	0	0	0	0	0	0	0	0
1501-2000	0	0	0	0	0	0	0	0	0	0
2001-2500	0	0	0	0	0	0	0	0	0	0
2501-3000	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	0	0	0	0	0	0	3
INV DT/DZ	5	0	0	0	0	0	0	0	0	5
FROM INV	4	0	0	0	0	0	0	0	0	4
BASE TO	3	0	0	0	0	0	0	0	0	3
SEC. 1	1	0	0	0	0	0	0	0	0	1
NO INV	5	0	0	0	0	0	0	0	0	5
DT/DZ FOR	5	0	0	0	0	0	0	0	0	5
LAYERS	4	0	0	0	0	0	0	0	0	4
AS INV	3	0	0	0	0	0	0	0	0	3
RASE	1	0	0	0	0	0	0	0	0	1

\*\*\*\*\*

INVERSION BASE HEIGHT (M)	1- 100	101- 250	251- 500	501- 750	751- 1000	1000- 1500	1501- 2000	2001- 2500	2501- 3000	TOTAL
1-100	3	0	0	0	0	0	0	0	0	3
101-250	0	0	0	0	0	0	0	0	0	0
251-500	0	0	0	0	0	0	0	0	0	0
501-750	0	0	0	0	0	0	0	0	0	0
751-1000	0	0	0	0	0	0	0	0	0	0
1000-1500	0	0	0	0	0	0	0	0	0	0
1501-2000	0	0	0	0	0	0	0	0	0	0
2001-2500	0	0	0	0	0	0	0	0	0	0
2501-3000	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	0	0	0	0	0	0	3
INV DT/DZ	5	0	0	0	0	0	0	0	0	5
FROM INV	4	0	0	0	0	0	0	0	0	4
BASE TO	3	0	0	0	0	0	0	0	0	3
SEC. 1	1	0	0	0	0	0	0	0	0	1
NO INV	5	0	0	0	0	0	0	0	0	5
DT/DZ FOR	5	0	0	0	0	0	0	0	0	5
LAYERS	4	0	0	0	0	0	0	0	0	4
AS INV	3	0	0	0	0	0	0	0	0	3
RASE	1	0	0	0	0	0	0	0	0	1

\*\*\*\*\*

DT/DZ (DEG C) 2100M  
SE=0.00 TO=0.40  
4E=0.41 TO=0.80  
3E=0.81 TO=1.20  
1E=1.21 TO=1.60

\*\*\*\*\*



MONTH: MAY      YEAR: 1976      COL CB TRACT      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: MAY YEAR: 1976. COL CB TRACT 9FC TO 500 METERS

### NORMALIZED FREQUENCY DISTRIBUTION

[illegible]

RELATIVE FREQUENCY OF OCCURRENCE OF THE B	STABILITY CLASS IS	0.10
0.00	0.00	0.00
0.01	0.01	0.01
0.02	0.02	0.02
0.03	0.03	0.03
0.04	0.04	0.04
0.05	0.05	0.05
0.06	0.06	0.06
0.07	0.07	0.07
0.08	0.08	0.08
0.09	0.09	0.09
0.10	0.10	0.10
0.11	0.11	0.11
0.12	0.12	0.12
0.13	0.13	0.13
0.14	0.14	0.14
0.15	0.15	0.15
0.16	0.16	0.16
0.17	0.17	0.17
0.18	0.18	0.18
0.19	0.19	0.19
0.20	0.20	0.20
0.21	0.21	0.21
0.22	0.22	0.22
0.23	0.23	0.23
0.24	0.24	0.24
0.25	0.25	0.25
0.26	0.26	0.26
0.27	0.27	0.27
0.28	0.28	0.28
0.29	0.29	0.29
0.30	0.30	0.30
0.31	0.31	0.31
0.32	0.32	0.32
0.33	0.33	0.33
0.34	0.34	0.34
0.35	0.35	0.35
0.36	0.36	0.36
0.37	0.37	0.37
0.38	0.38	0.38
0.39	0.39	0.39
0.40	0.40	0.40
0.41	0.41	0.41
0.42	0.42	0.42
0.43	0.43	0.43
0.44	0.44	0.44
0.45	0.45	0.45
0.46	0.46	0.46
0.47	0.47	0.47
0.48	0.48	0.48
0.49	0.49	0.49
0.50	0.50	0.50
0.51	0.51	0.51
0.52	0.52	0.52
0.53	0.53	0.53
0.54	0.54	0.54
0.55	0.55	0.55
0.56	0.56	0.56
0.57	0.57	0.57
0.58	0.58	0.58
0.59	0.59	0.59
0.60	0.60	0.60
0.61	0.61	0.61
0.62	0.62	0.62
0.63	0.63	0.63
0.64	0.64	0.64
0.65	0.65	0.65
0.66	0.66	0.66
0.67	0.67	0.67
0.68	0.68	0.68
0.69	0.69	0.69
0.70	0.70	0.70
0.71	0.71	0.71
0.72	0.72	0.72
0.73	0.73	0.73
0.74	0.74	0.74
0.75	0.75	0.75
0.76	0.76	0.76
0.77	0.77	0.77
0.78	0.78	0.78
0.79	0.79	0.79
0.80	0.80	0.80
0.81	0.81	0.81
0.82	0.82	0.82
0.83	0.83	0.83
0.84	0.84	0.84
0.85	0.85	0.85
0.86	0.86	0.86
0.87	0.87	0.87
0.88	0.88	0.88
0.89	0.89	0.89
0.90	0.90	0.90
0.91	0.91	0.91
0.92	0.92	0.92
0.93	0.93	0.93
0.94	0.94	0.94
0.95	0.95	0.95
0.96	0.96	0.96
0.97	0.97	0.97
0.98	0.98	0.98
0.99	0.99	0.99
1.00	1.00	1.00

RELATIVE FREQUENCY OF CALM 0.00

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: MAY YEAR: 1976. COL CB TRACT SFC TO 500 METERS

### NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0
AVG SPEED	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.00

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: MAY YEAR: 1976. COL CB TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.05	0.00	0.00	0.00	0.00	0.00	1.6	0.05
NF	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
ENE	0.19	0.00	0.00	0.00	0.00	0.00	0.3	0.19
ESE	0.00	0.05	0.00	0.00	0.00	0.00	1.0	0.05
SF	0.00	0.00	0.00	0.00	0.00	0.00	0.1	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
SS	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
SSW	0.10	0.14	0.14	0.10	0.00	0.00	7.2	0.48
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
W	0.05	0.00	0.00	0.00	0.00	0.00	0.0	0.05
NNW	0.05	0.05	0.00	0.00	0.00	0.00	1.7	0.10
NW	0.05	0.00	0.00	0.00	0.00	0.00	3.3	0.05
NNW	0.00	0.05	0.00	0.00	0.00	0.00	0.7	0.05
AVG SPEED	1.5	4.6	8.2	13.7	0.0	0.0		0.0
TOTAL	0.48	0.29	0.14	0.10	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.88

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: MAY

YEAR: 1976.

COL CR TRACT

SFC TO 500 METERS

## NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SESE	0.33	0.0	0.0	0.0	0.0	0.0	2.00	0.33
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.33	0.0	0.0	0.0	0.0	0.0	1.20	0.33
SWW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.33	0.0	0.0	0.0	0.0	3.4	0.33
AVG SPEED	1.6	3.4	0.0	0.0	0.0	0.0		0.0
TOTAL	0.67	0.33	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E

STABILITY CLASS IS

0.13

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE  
 500 M OF TEMP AND WIND DATA





MONTH: MAY YEAR: 1976. COL CR TRACT SEC TO 500 METERS

## NORMALIZED FREQUENCY DISTRIBUTION

[illegible]

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: MAY

YEAR: 1976.

COL CB TRACT

SFC TO 500 METERS

# NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.04	0.0	0.0	0.0	0.0	0.0	1.6	0.04
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.17	0.0	0.0	0.0	0.0	0.0	1.3	0.17
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.04	0.04	0.0	0.0	0.0	0.0	2.6	0.08
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.13	0.13	0.13	0.08	0.0	0.0	6.6	0.46
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.04	0.04	0.0	0.0	0.0	0.0	1.7	0.04
NW	0.04	0.0	0.0	0.0	0.0	0.0	3.3	0.08
NNW	0.0	0.08	0.0	0.0	0.0	0.0	3.5	0.08
AVG SPEED	1.5	4.4	8.2	13.7	0.0	0.0		0.0
TOTAL	0.50	0.29	0.13	0.08	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 3 SOUNDINGS FROM A SAMPLE OF 27 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



\*\*\*\*\*  
 COL CB TRACT FLEV 2042 METERS SOUNDING ID 2241  
 E 05/02/76 TIME 06:04MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	137.	1.46	0.0

\*\*\*\*\*  
 COL CB TRACT FLEV 2042 METERS SOUNDING ID 2242  
 E 05/02/76 TIME 12:05MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1336.	1382.	0.0	-0.96

\*\*\*\*\*  
 COL CB TRACT FLEV 2042 METERS SOUNDING ID 2240  
 E 05/04/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.  
 THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SEC

\*\*\*\*\*  
 COL CB TRACT FLEV 2042 METERS SOUNDING ID 2239  
 E 05/04/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.  
 THERE ARE NO INVERSION BASES WITHIN 0M OF THE SEC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-2.01
100.	250.	-0.82
250.	500.	-0.94
500.	750.	-0.73
750.	1000.	-1.00
1000.	1500.	-0.86

\*\*\*\*\*  
 COL CB TRACT FLEV 2042 METERS SOUNDING ID 2246  
 E 05/06/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
46.	91.	0.22	-0.88





\*\*\*\*\* COL CB TRACT ELEV 2042 METERS SOUNDING ID 2248 \*\*\*\*\*

E 05/06/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
417.	463.	0.0	-1.25

\*\*\*\*\* COL CB TRACT ELEV 2042 METERS SOUNDING ID 2247 \*\*\*\*\*

E 05/08/76 TIME 06:10MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
581.	718.	0.0	-1.89

\*\*\*\*\* COL CB TRACT ELEV 2042 METERS SOUNDING ID 2249 \*\*\*\*\*

E 05/08/76 TIME 12:36MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
279.	370.	0.22	-0.83

\*\*\*\*\* COL CB TRACT ELEV 2042 METERS SOUNDING ID 2251 \*\*\*\*\*

E 05/10/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	91.	0.33	0.0

\*\*\*\*\* COL CB TRACT ELEV 2042 METERS SOUNDING ID 2253 \*\*\*\*\*

E 05/10/76 TIME 12:30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.81
100.	250.	-0.95
250.	500.	-1.07
500.	750.	-0.90
750.	1000.	-0.96
1000.	1500.	-1.02

\*\*\*\*\*





\*\*\*\*\* COL CB TRACT \*\*\*\*\* FLEV 2042 METERS \*\*\*\*\* SOUNDING ID 2250 \*\*\*\*\*

E 05/12/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
412.	457.	0.0	-0.92

\*\*\*\*\* COL CB TRACT \*\*\*\*\* FLEV 2042 METERS \*\*\*\*\* SOUNDING ID 2254 \*\*\*\*\*

E 05/12/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1415.	1461.	0.0	-1.06

\*\*\*\*\* COL CB TRACT \*\*\*\*\* FLEV 2042 METERS \*\*\*\*\* SOUNDING ID 2252 \*\*\*\*\*

E 05/14/76 TIME 05:45MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
91.	137.	0.66	-0.55

\*\*\*\*\* COL CB TRACT \*\*\*\*\* FLEV 2042 METERS \*\*\*\*\* SOUNDING ID 2255 \*\*\*\*\*

E 05/14/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
320.	366.	0.0	-0.75

\*\*\*\*\* COL CB TRACT \*\*\*\*\* FLEV 2042 METERS \*\*\*\*\* SOUNDING ID 2130 \*\*\*\*\*

E 05/18/76 TIME 06:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-0.71
100.	250.	-0.72
250.	500.	-0.75
500.	750.	-1.08
750.	1000.	-0.85
1000.	1500.	-1.02

\*\*\*\*\*



E 05/18/76 TIME 13:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP.. METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
229.	274.	0.0	-1.01

\*\*\*\*\*  
COL CB TRACT ELEV 2042 METERS SOUNDING ID 2173

E 05/20/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP.. METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
686.	732.	0.0	-0.80

\*\*\*\*\*  
COL CB TRACT ELEV 2042 METERS SOUNDING ID 2175

E 05/22/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SEC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-0.88
100.	250.	-0.93
250.	500.	-0.76
500.	750.	-0.68
750.	1000.	-0.72
1000.	1500.	-0.71

\*\*\*\*\*  
COL CB TRACT ELEV 2042 METERS SOUNDING ID 2174

05/22/76 TIME 12:30MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SEC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.25
100.	250.	-0.97
250.	500.	-0.82
500.	750.	-0.64
750.	1000.	-0.75
1000.	1500.	-0.80

\*\*\*\*\*  
COL CB TRACT ELEV 2042 METERS SOUNDING ID 2177

05/24/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP.. METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
183.	229.	1.31	-0.98



\*\*\*\*\* COL CB TRACT FLEV 2042 METERS SOUNDING ID 1416 \*\*\*\*\*

TE 05/30/76 TIME 06:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP. METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
91.	137.	0.0	-0.55

\*\*\*\*\* COL CB TRACT FLEV 2042 METERS SOUNDING ID 6760 \*\*\*\*\*

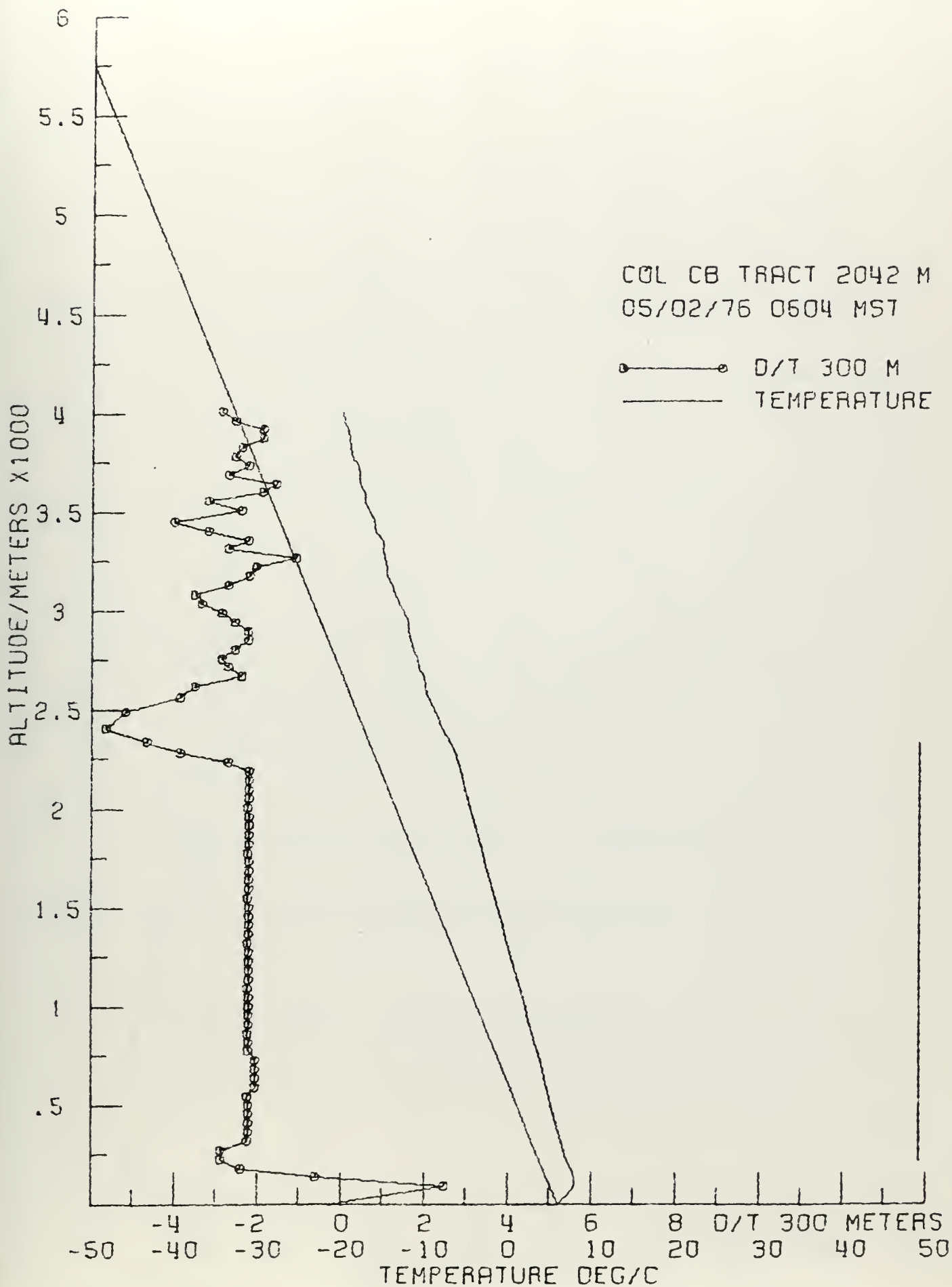
TE 05/30/76 TIME 12:00MST ASCENT RATE 600 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP. METERS AGI	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
380.	425.	0.22	-1.08

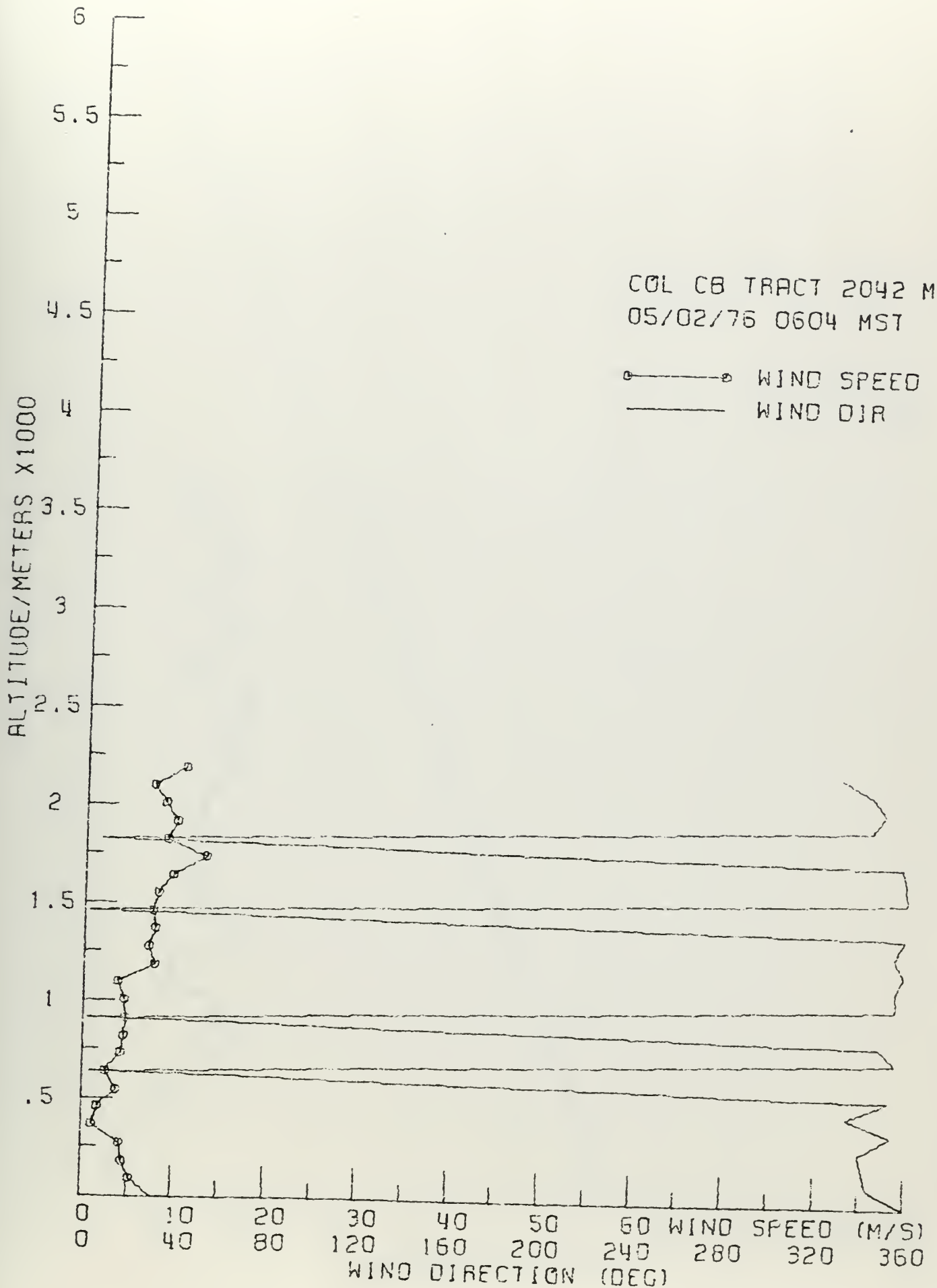




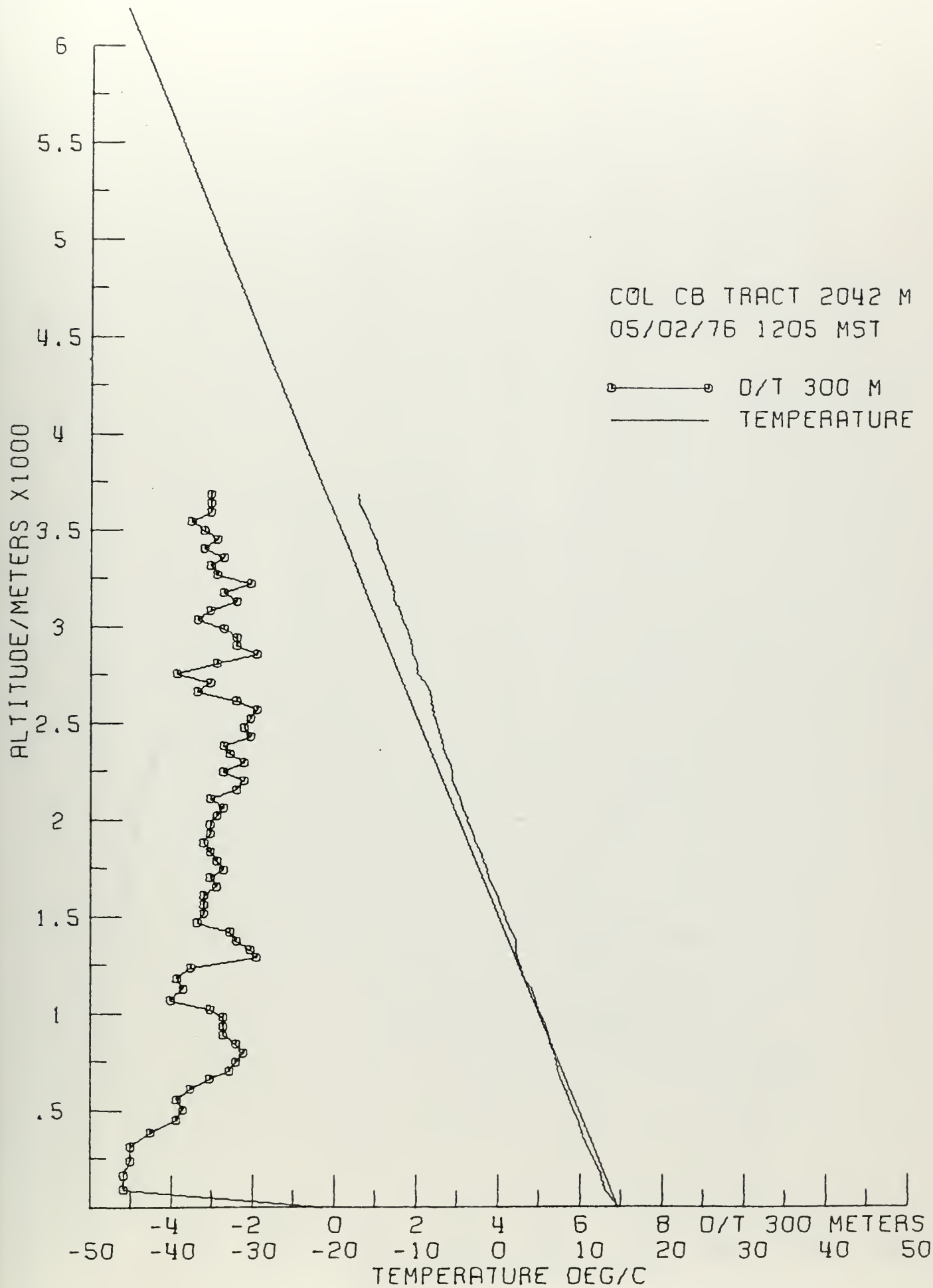






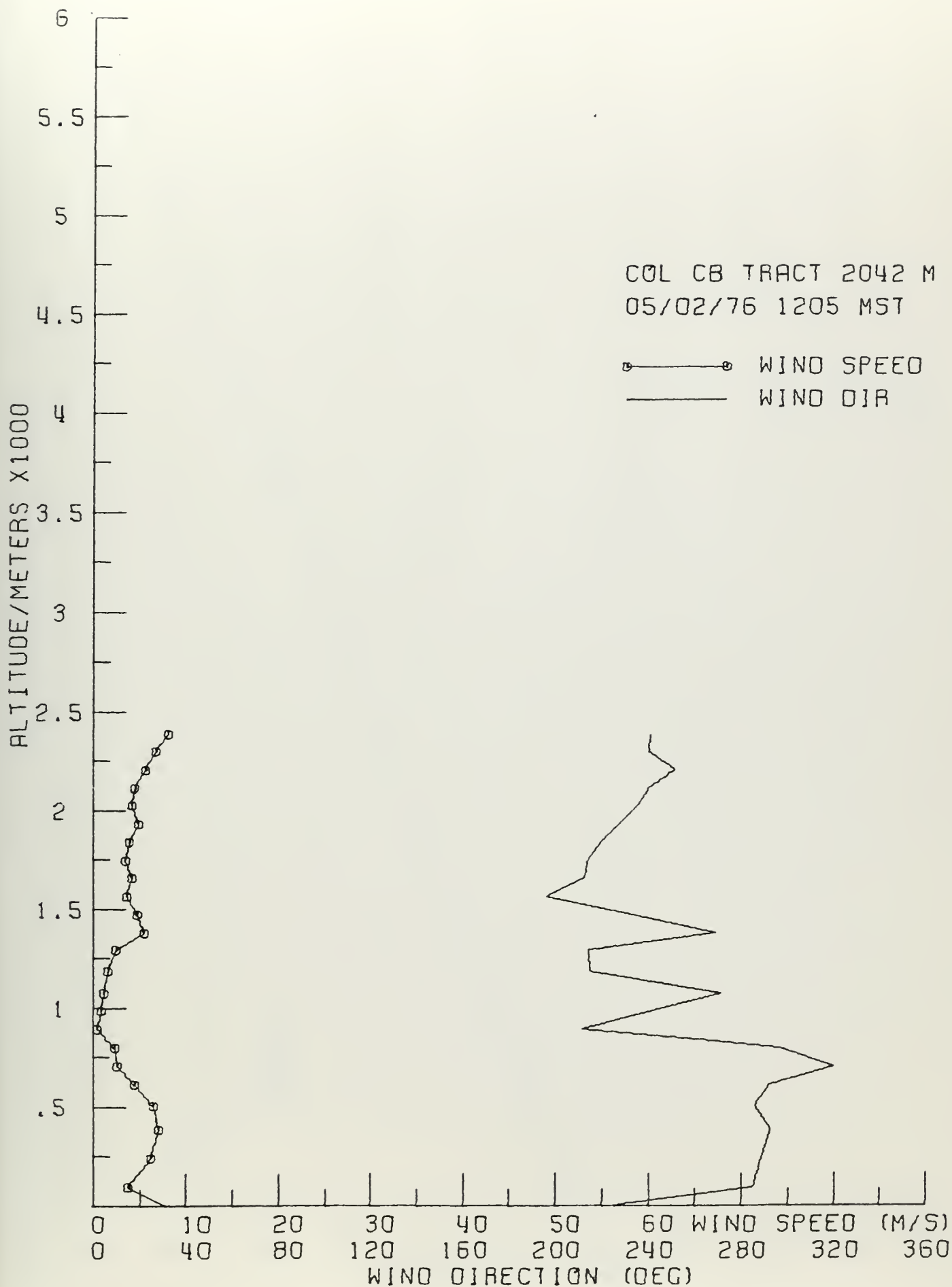




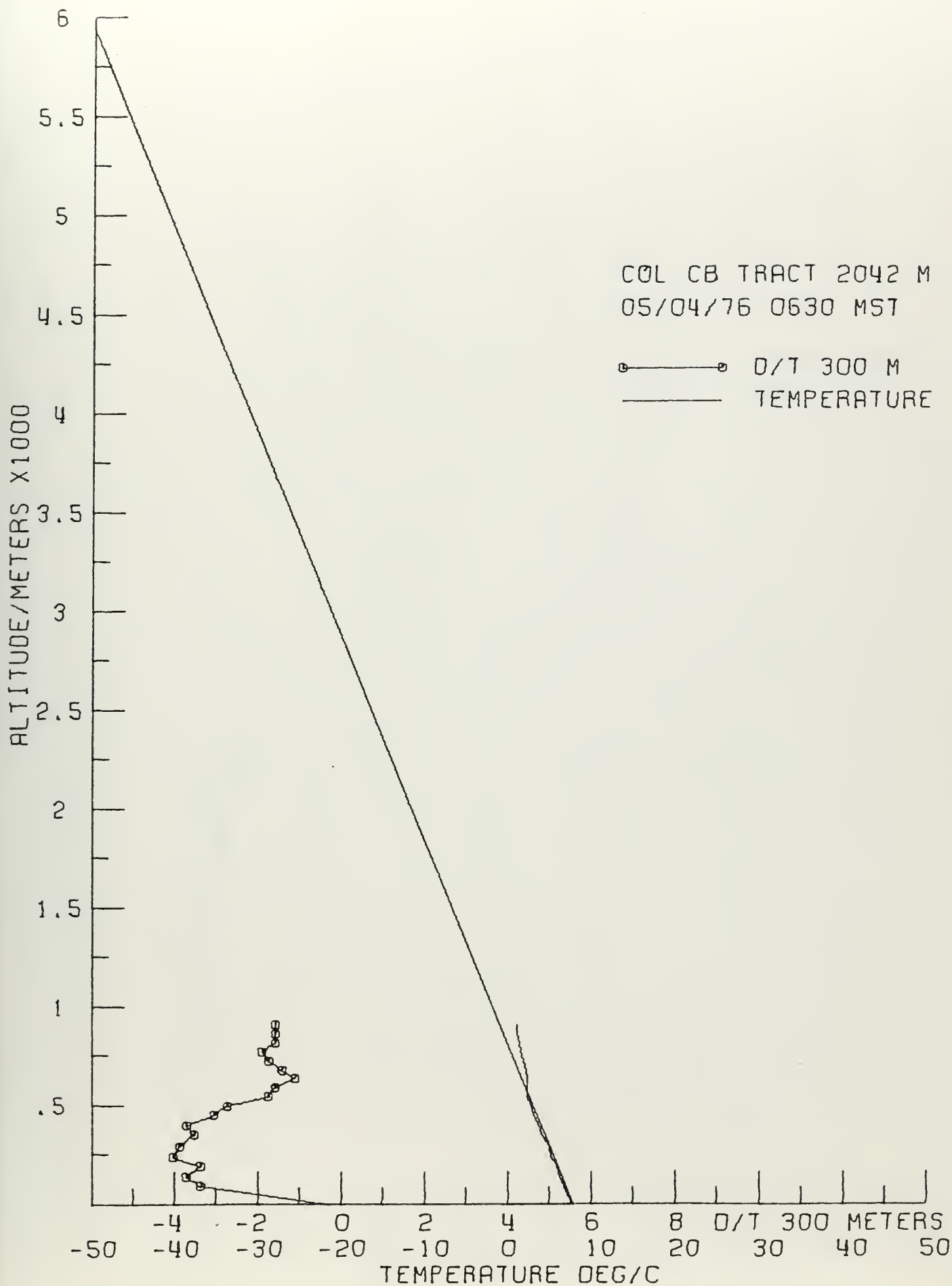




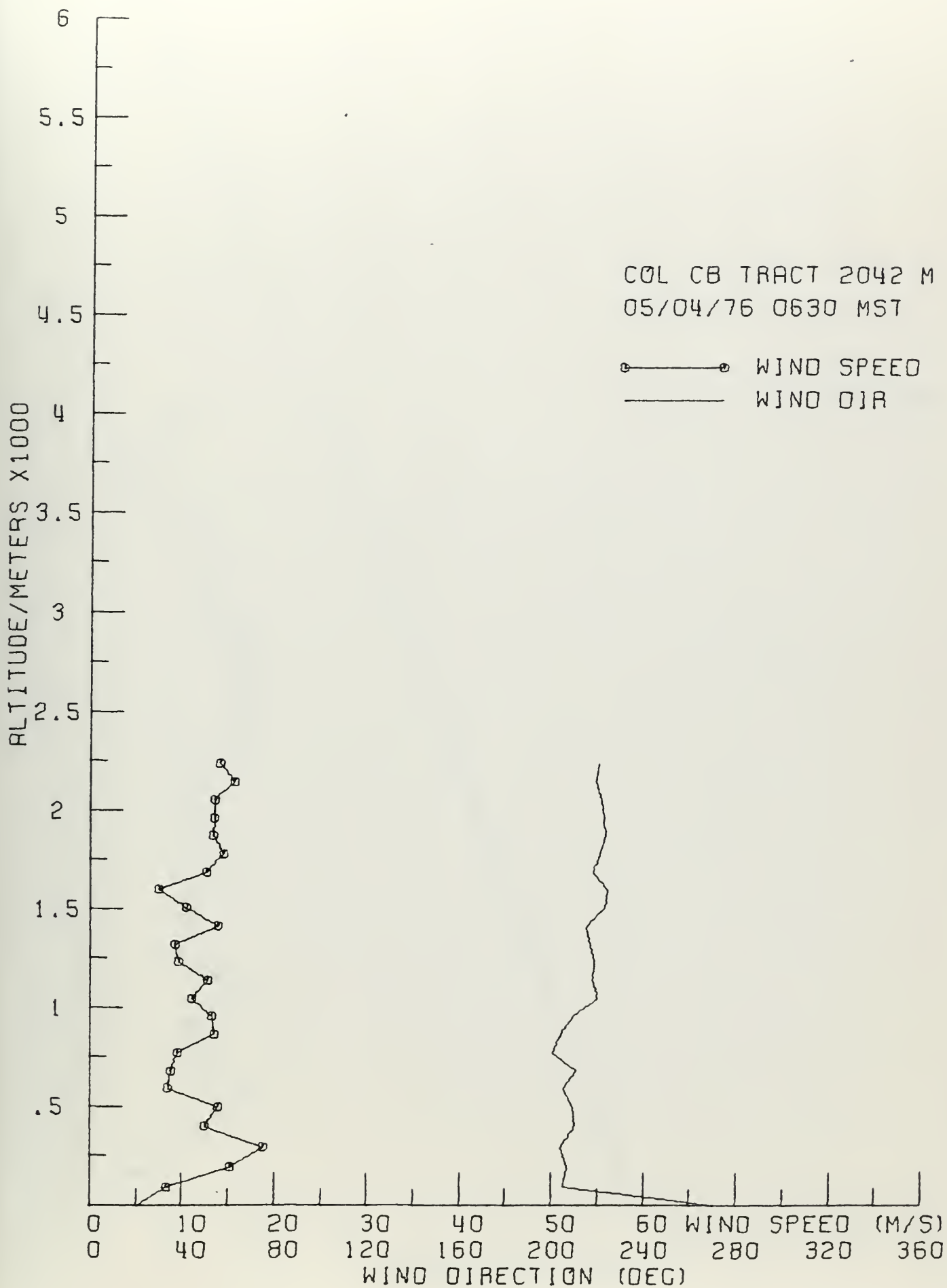






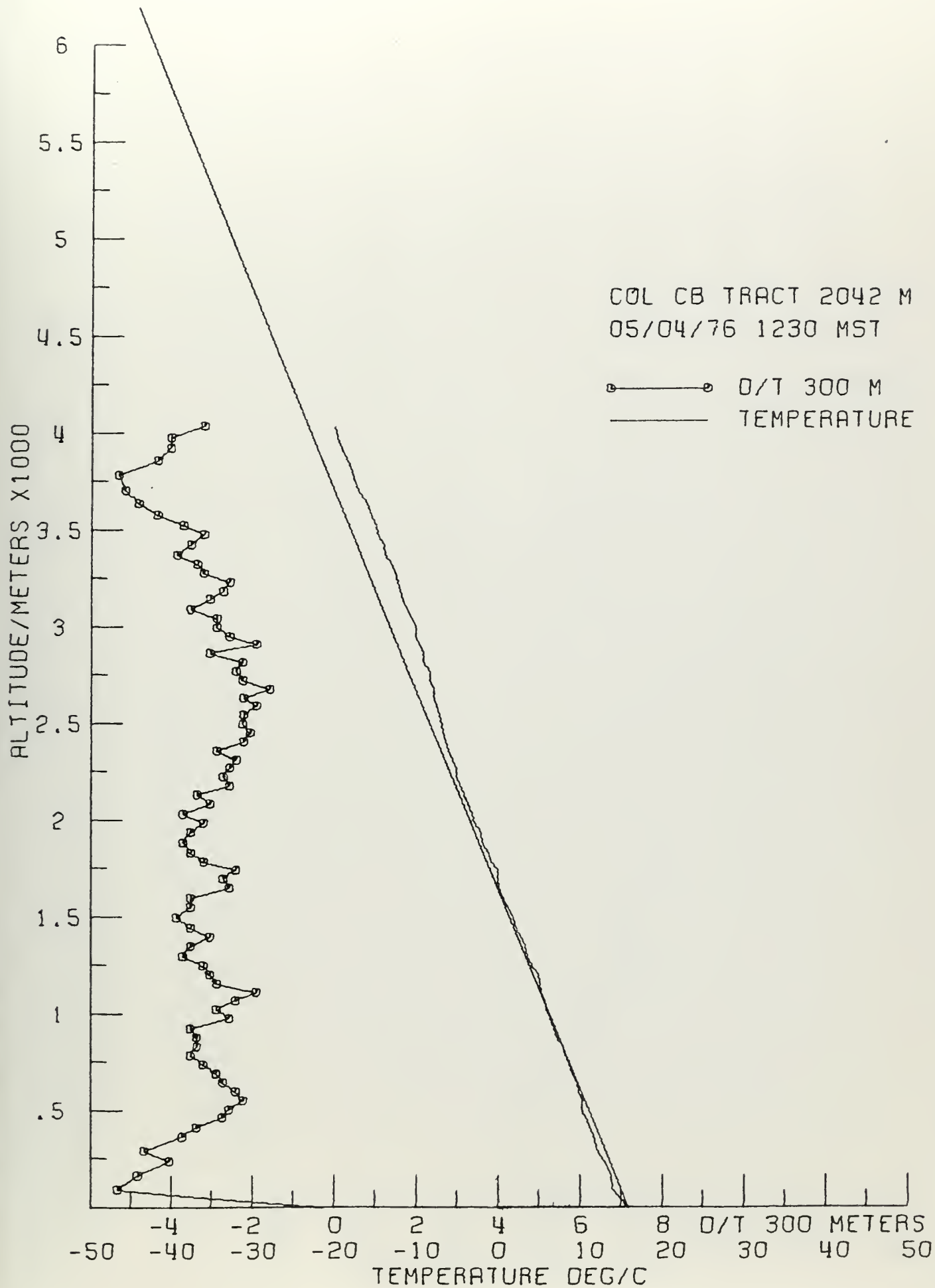




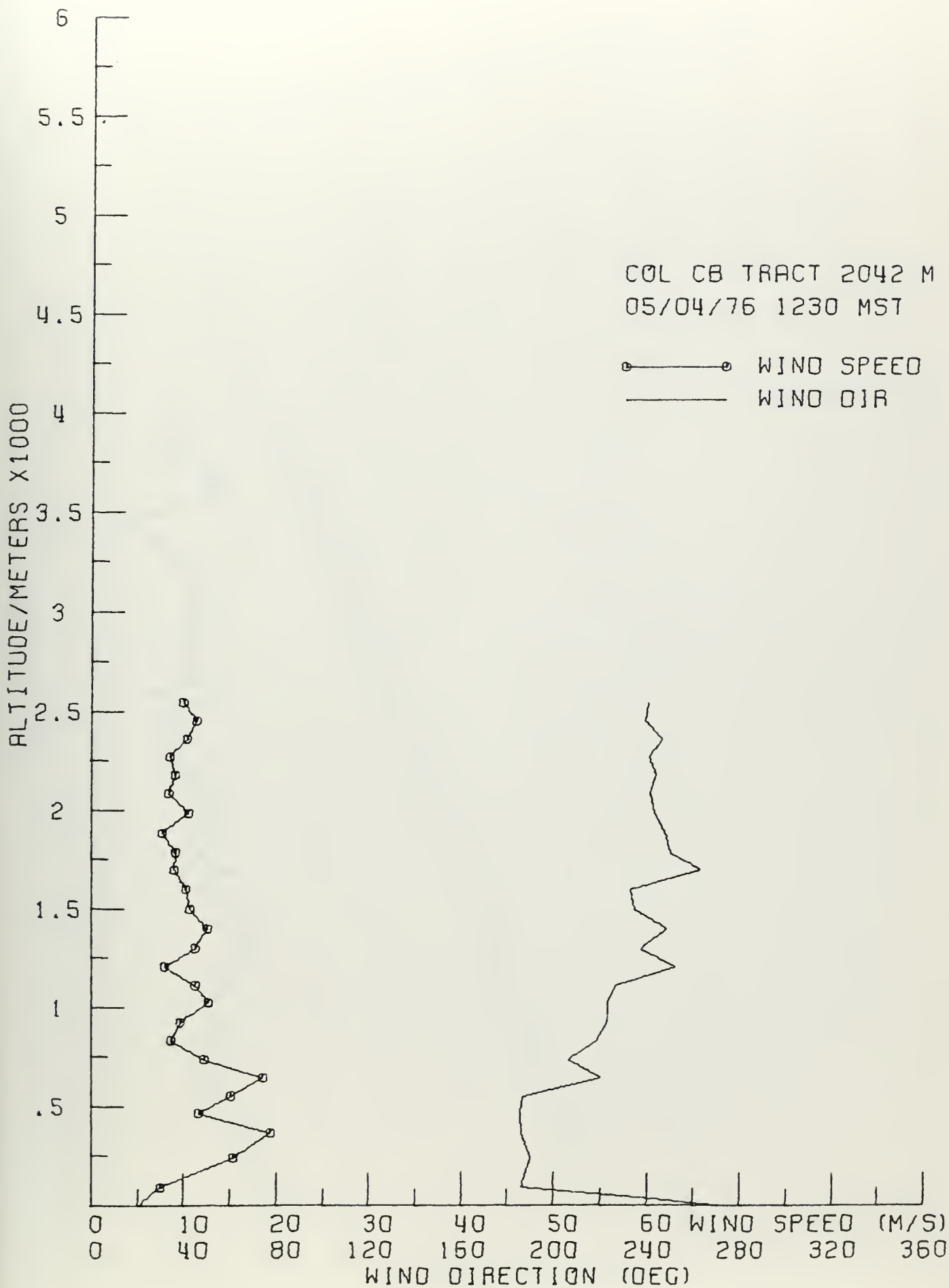




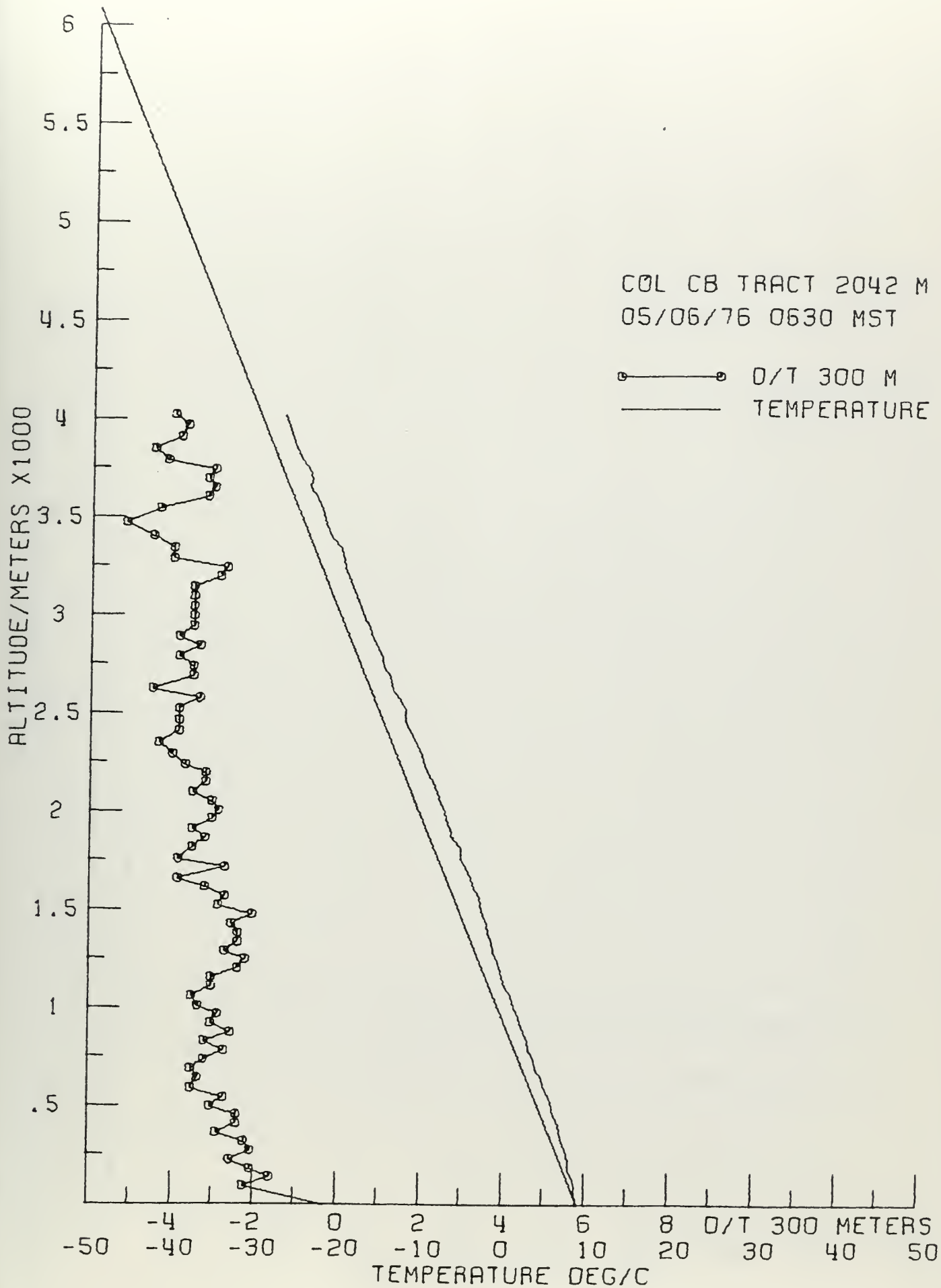






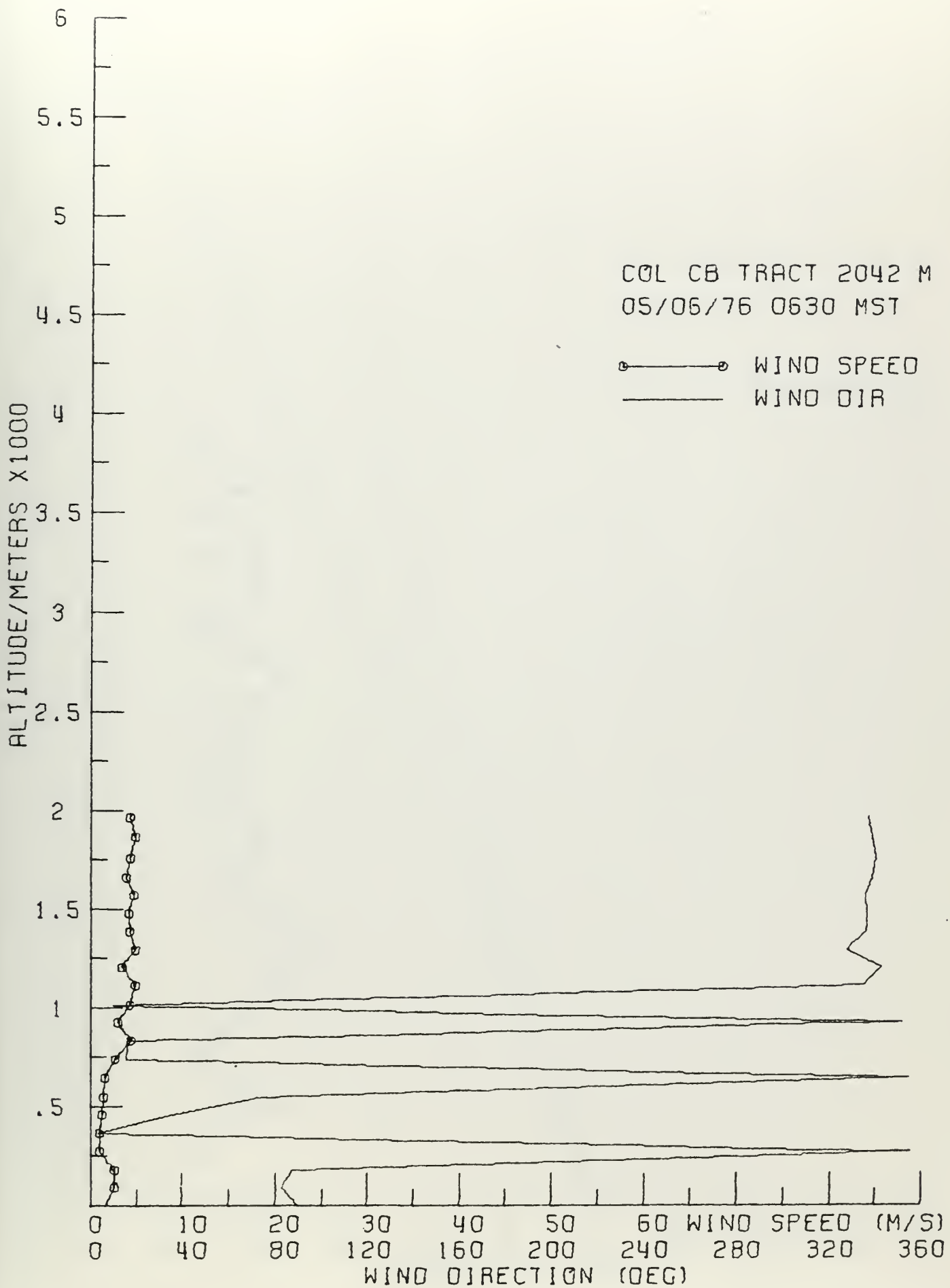




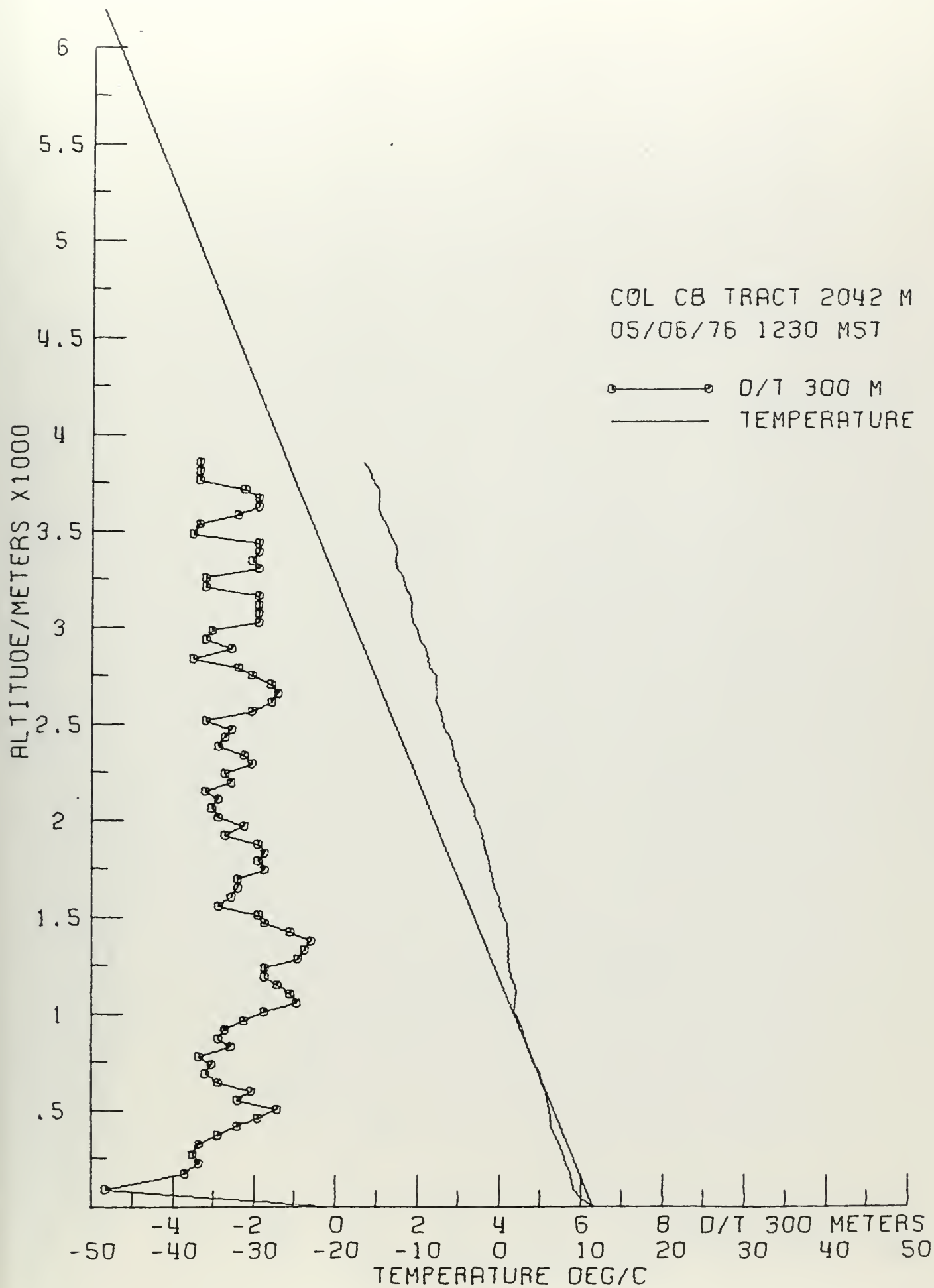




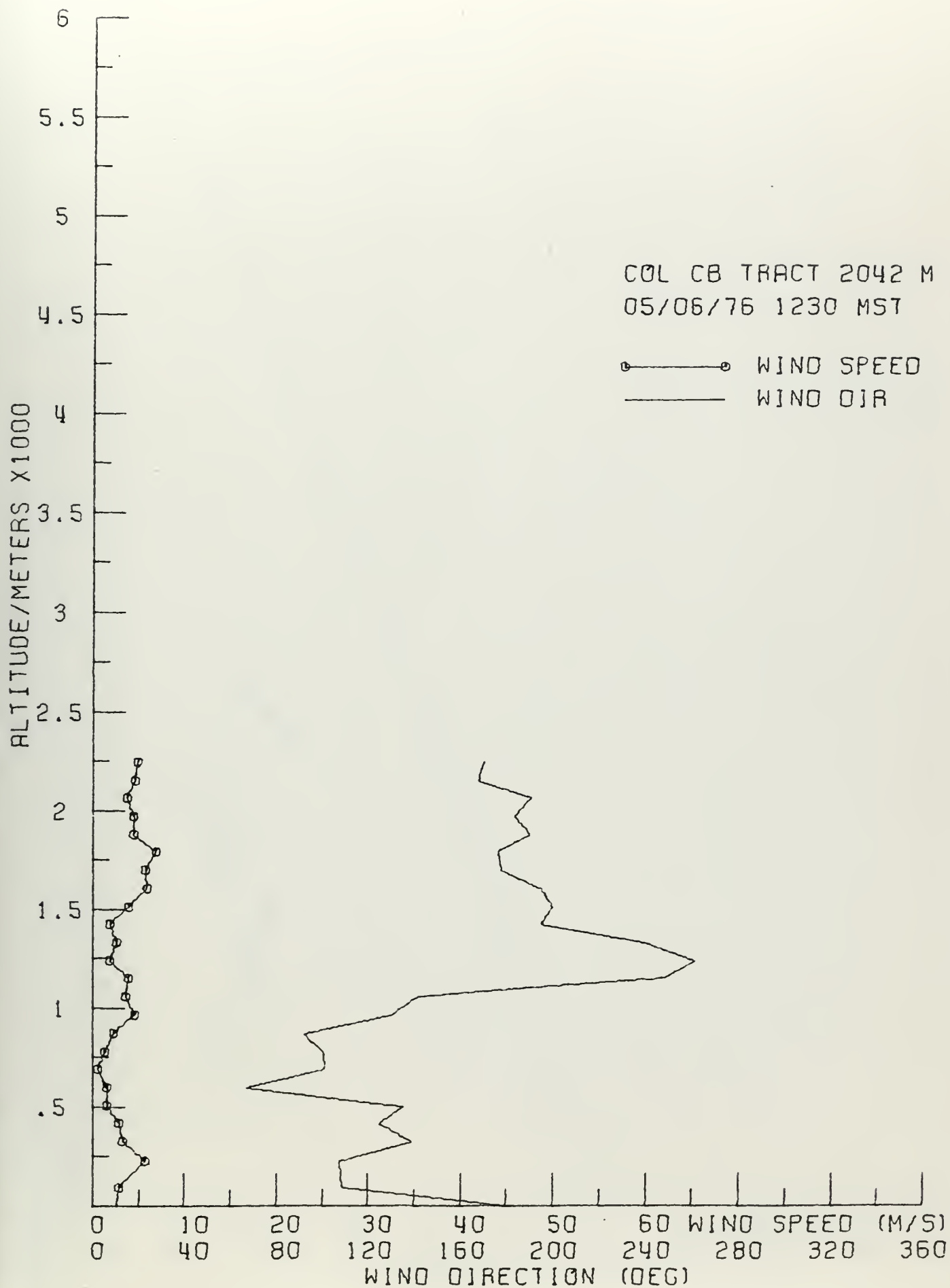




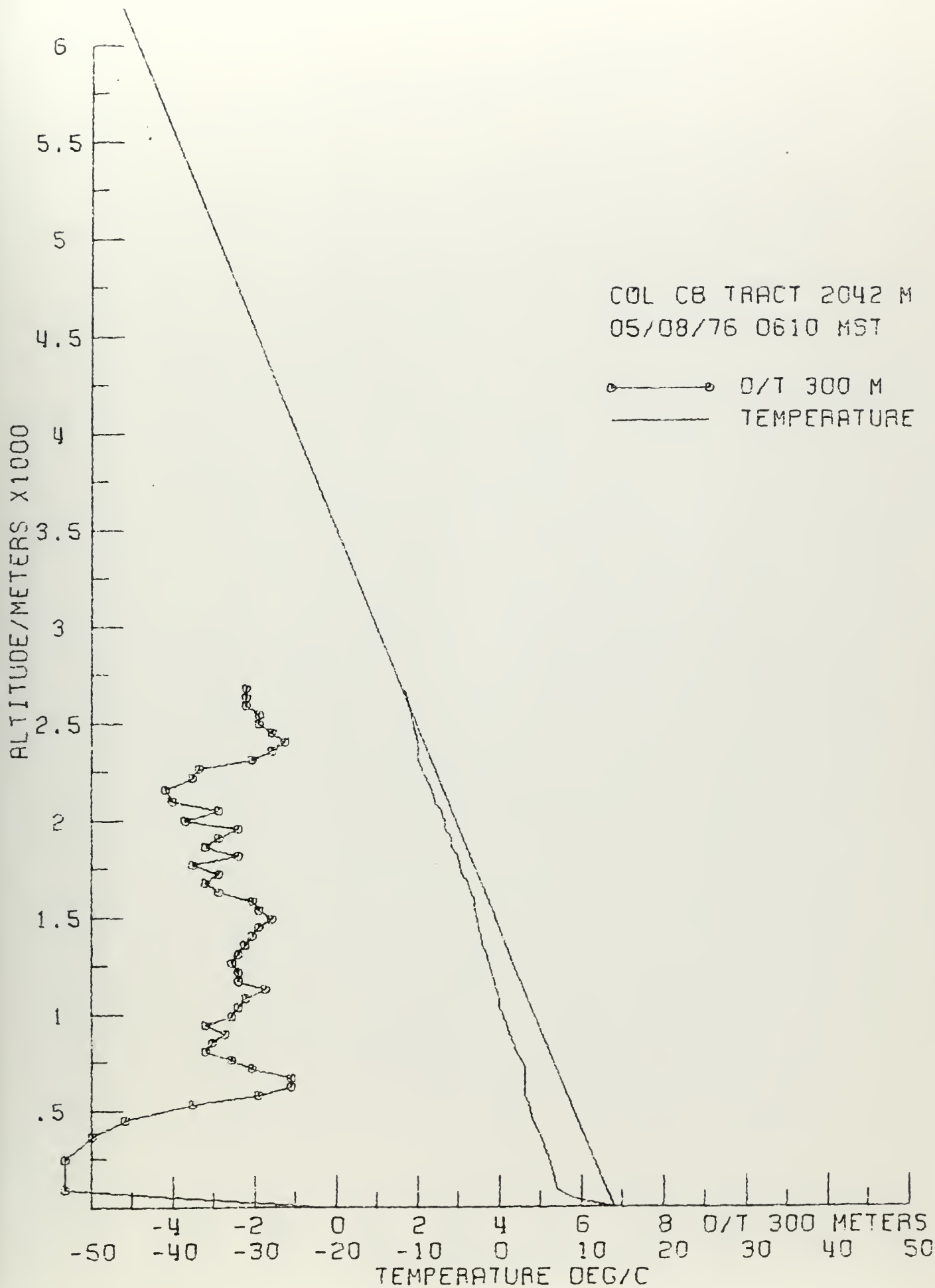






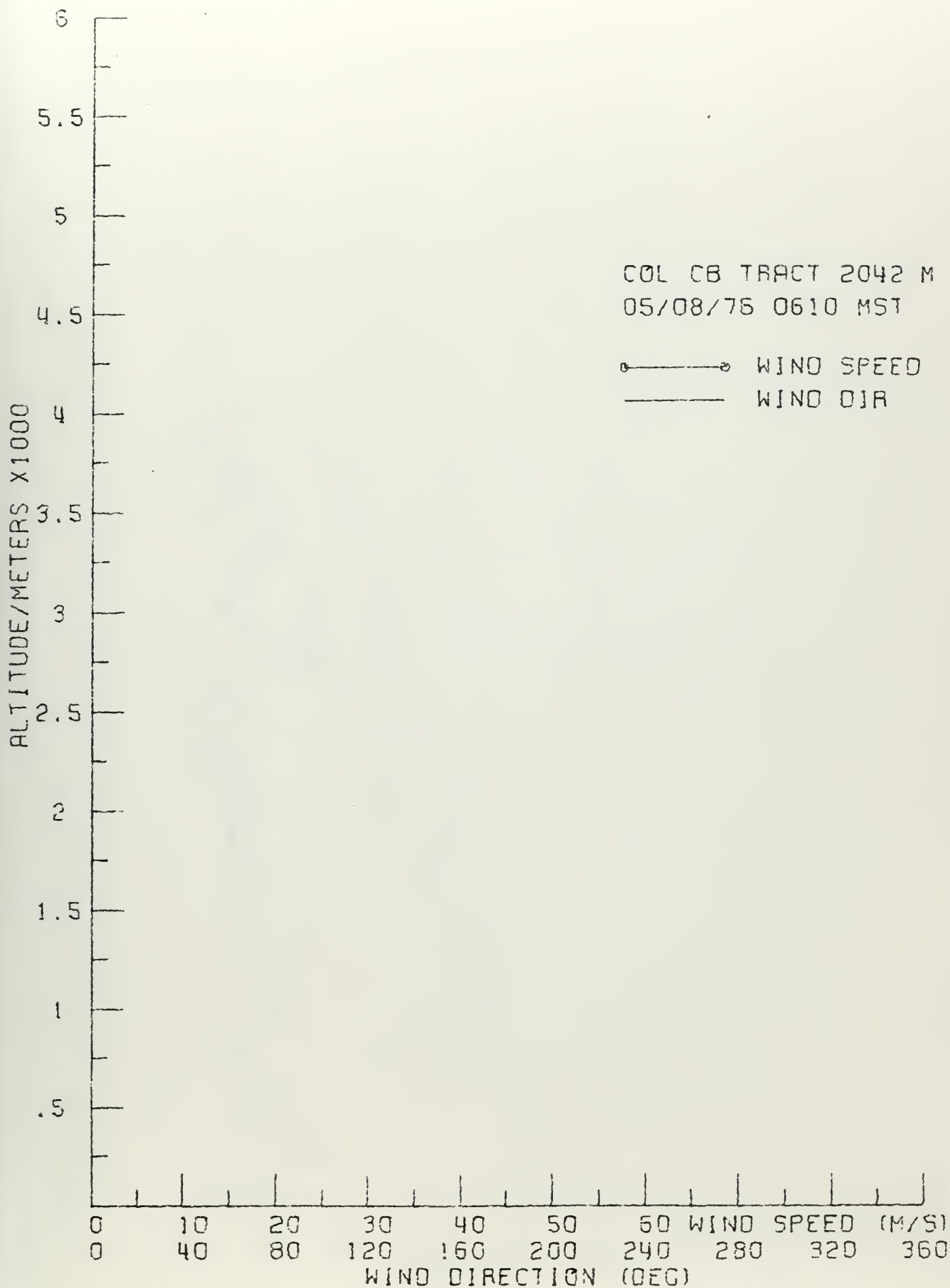




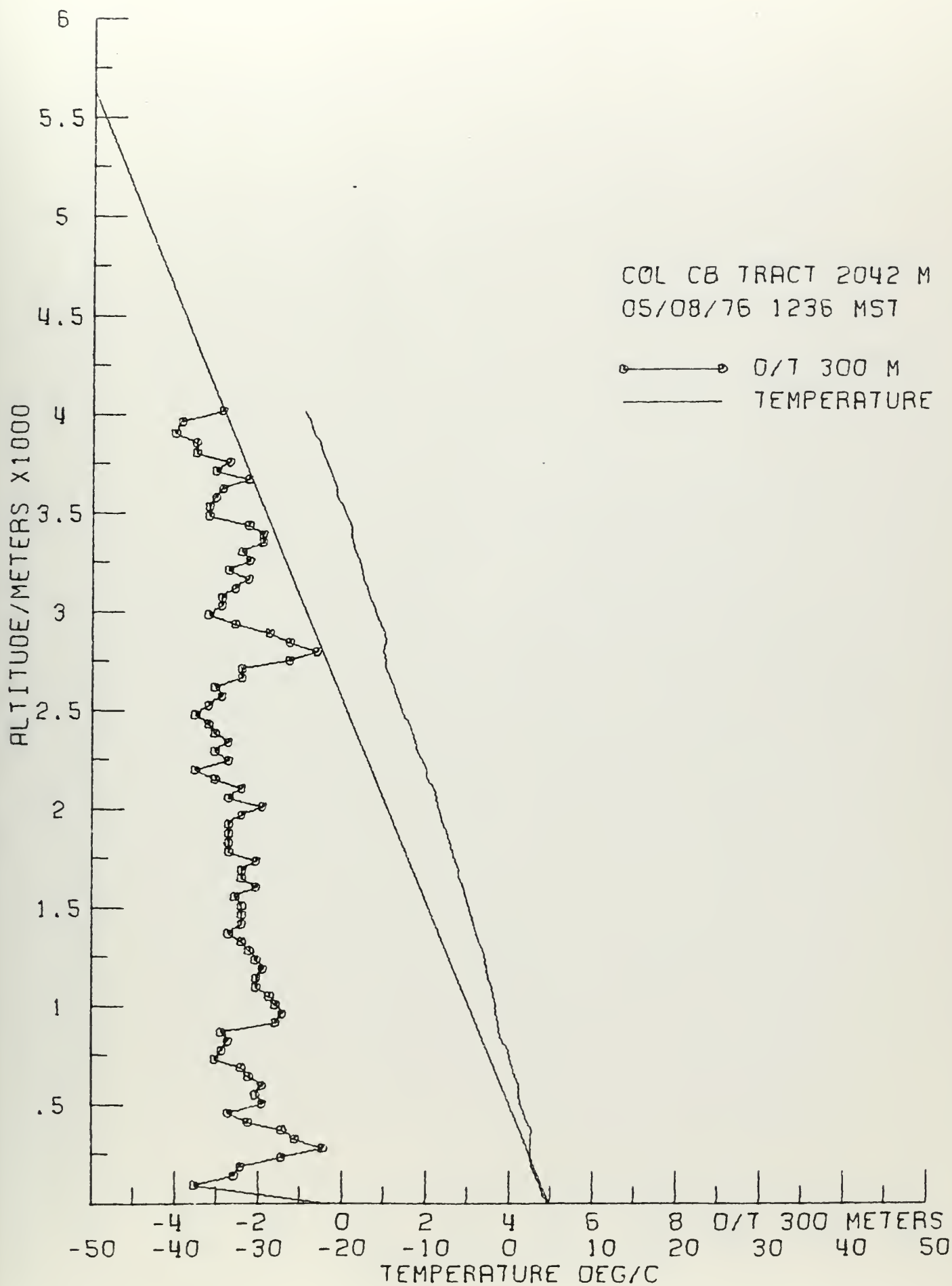




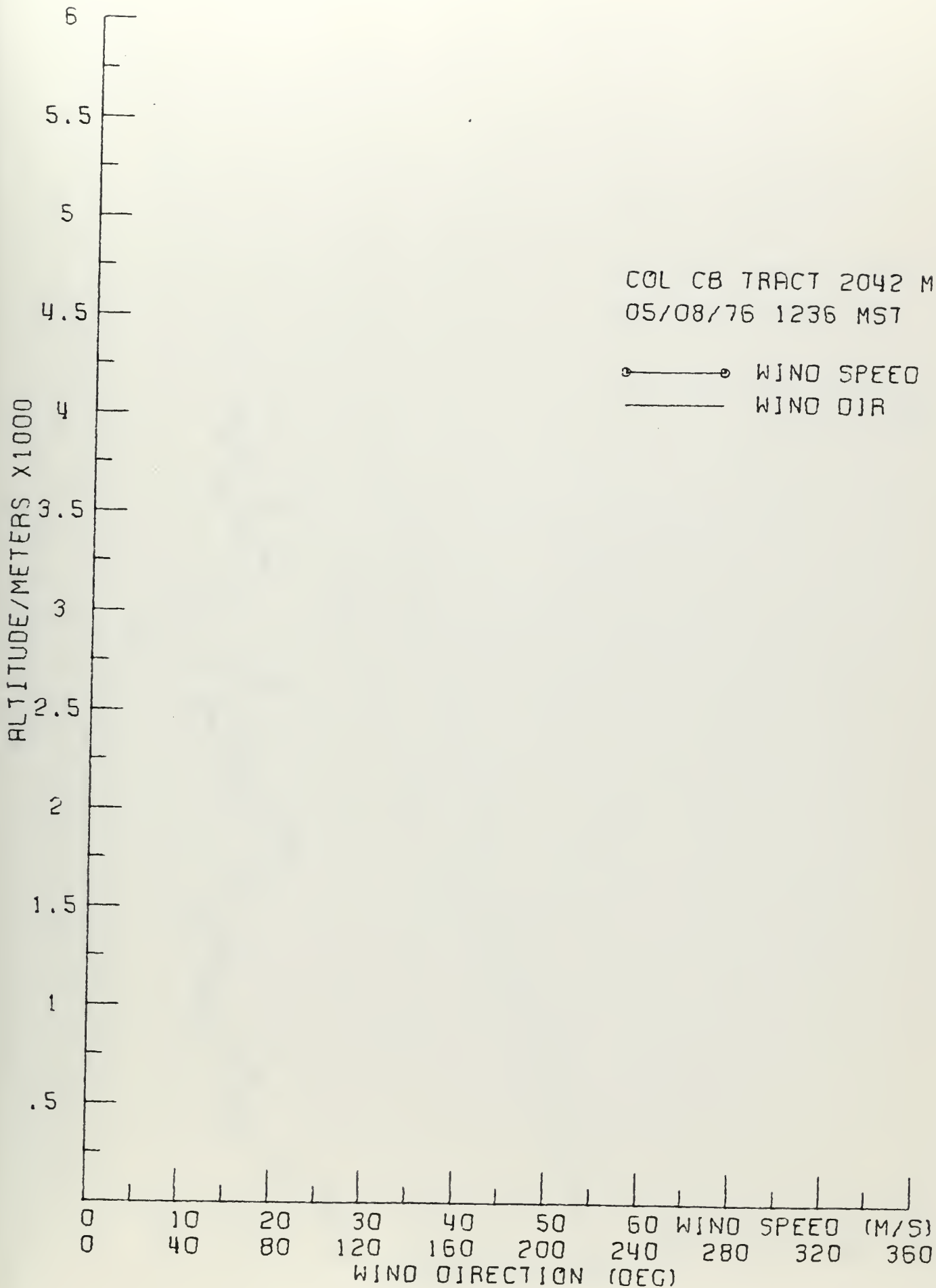






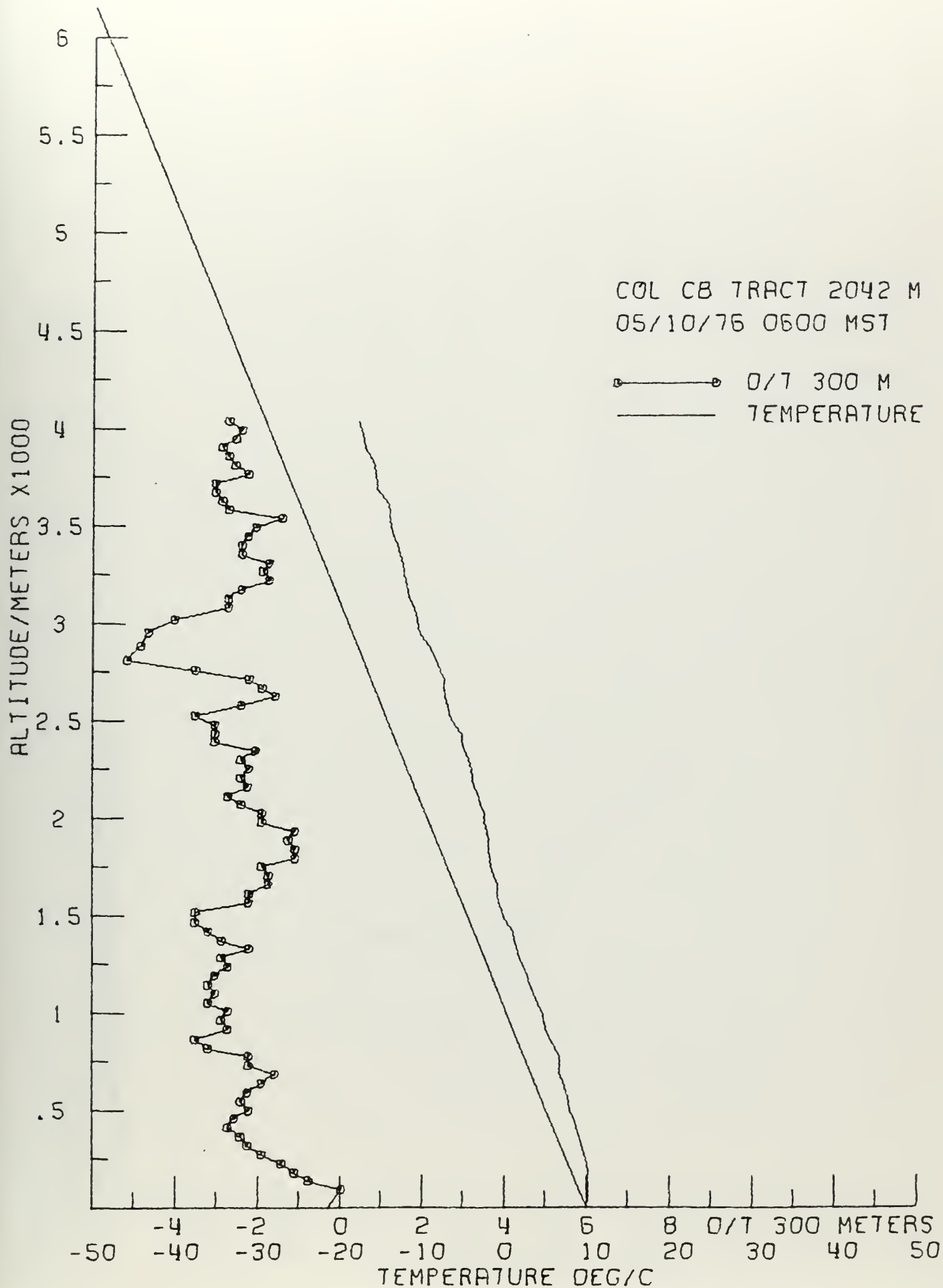




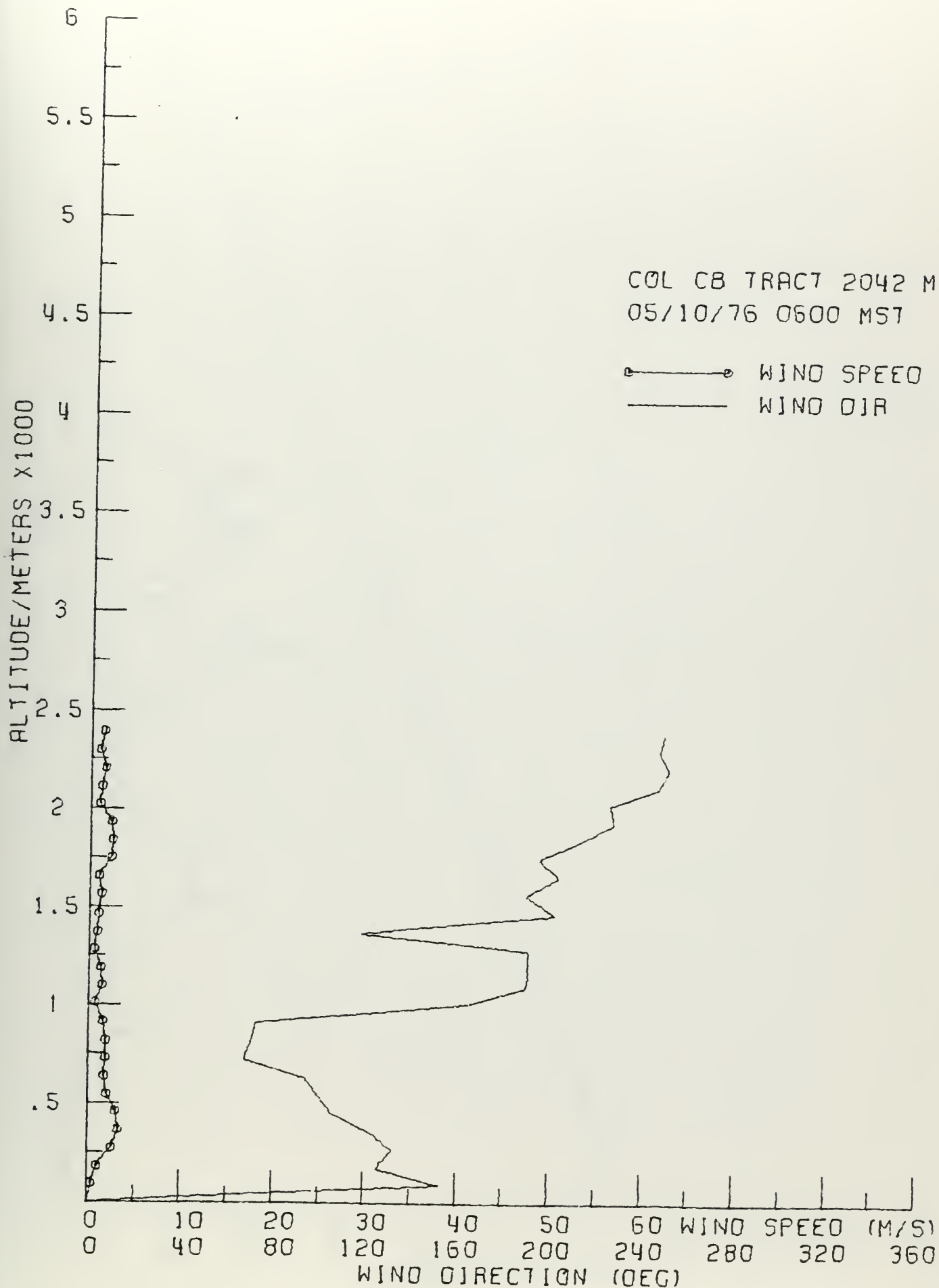




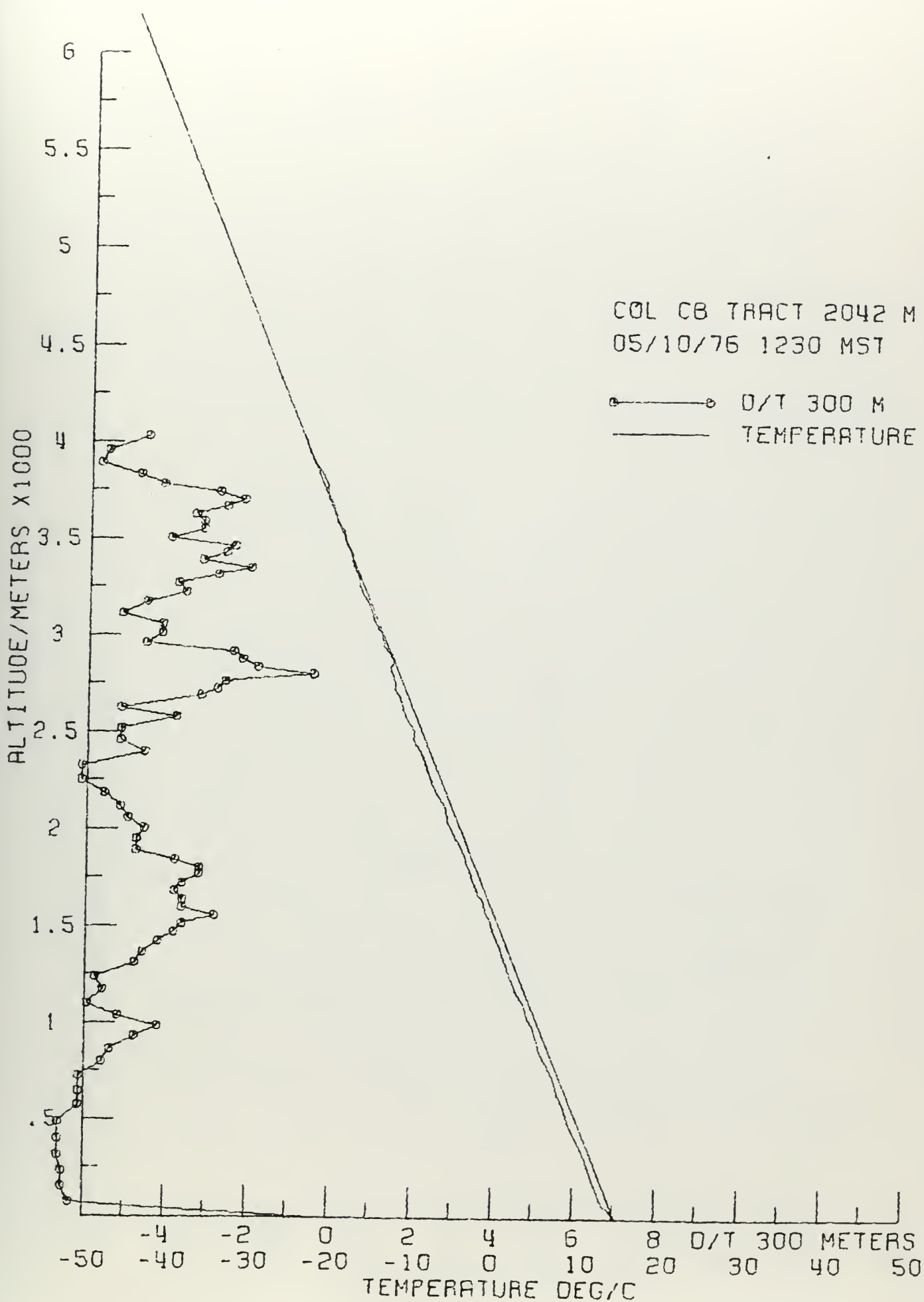




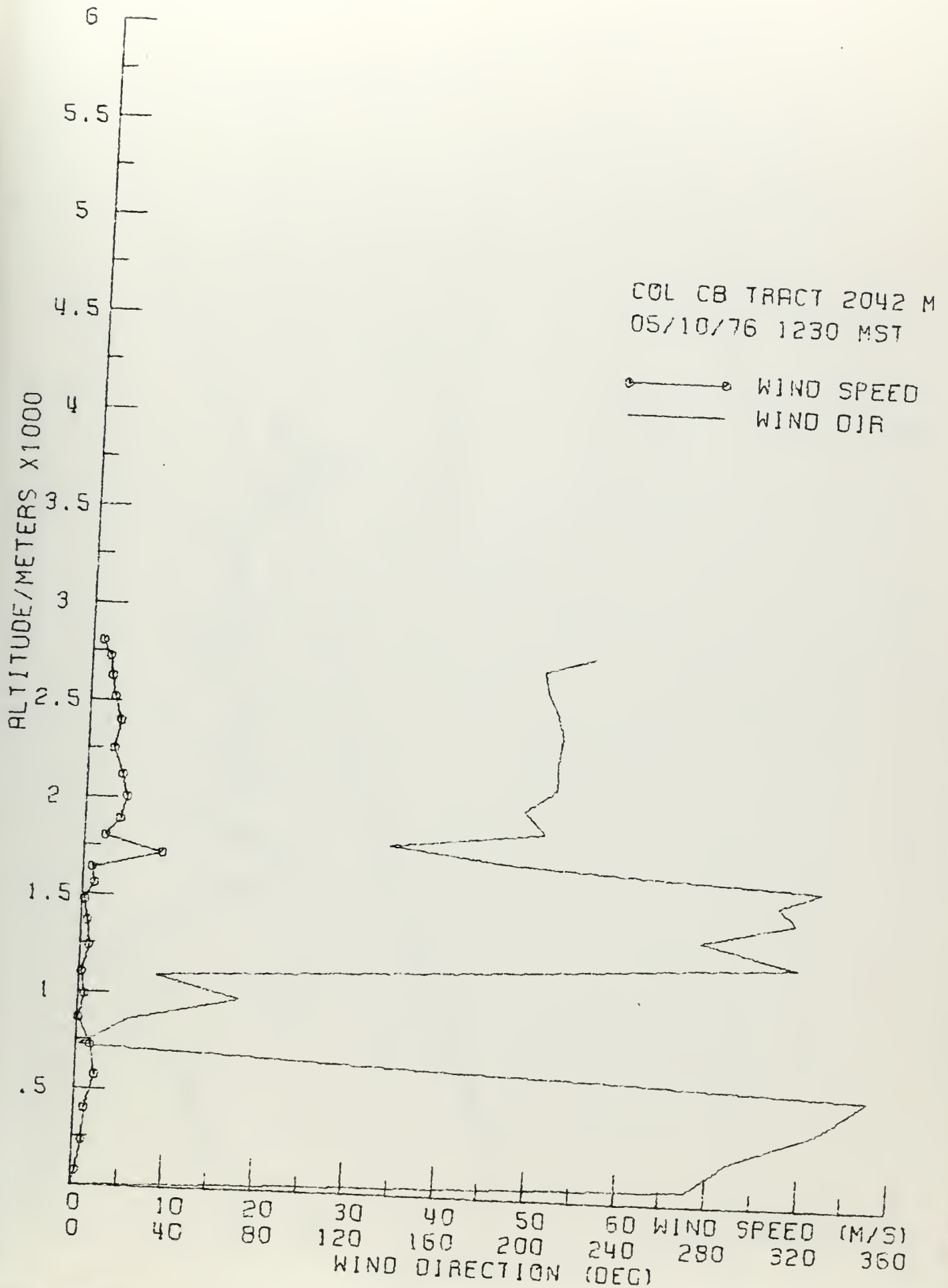






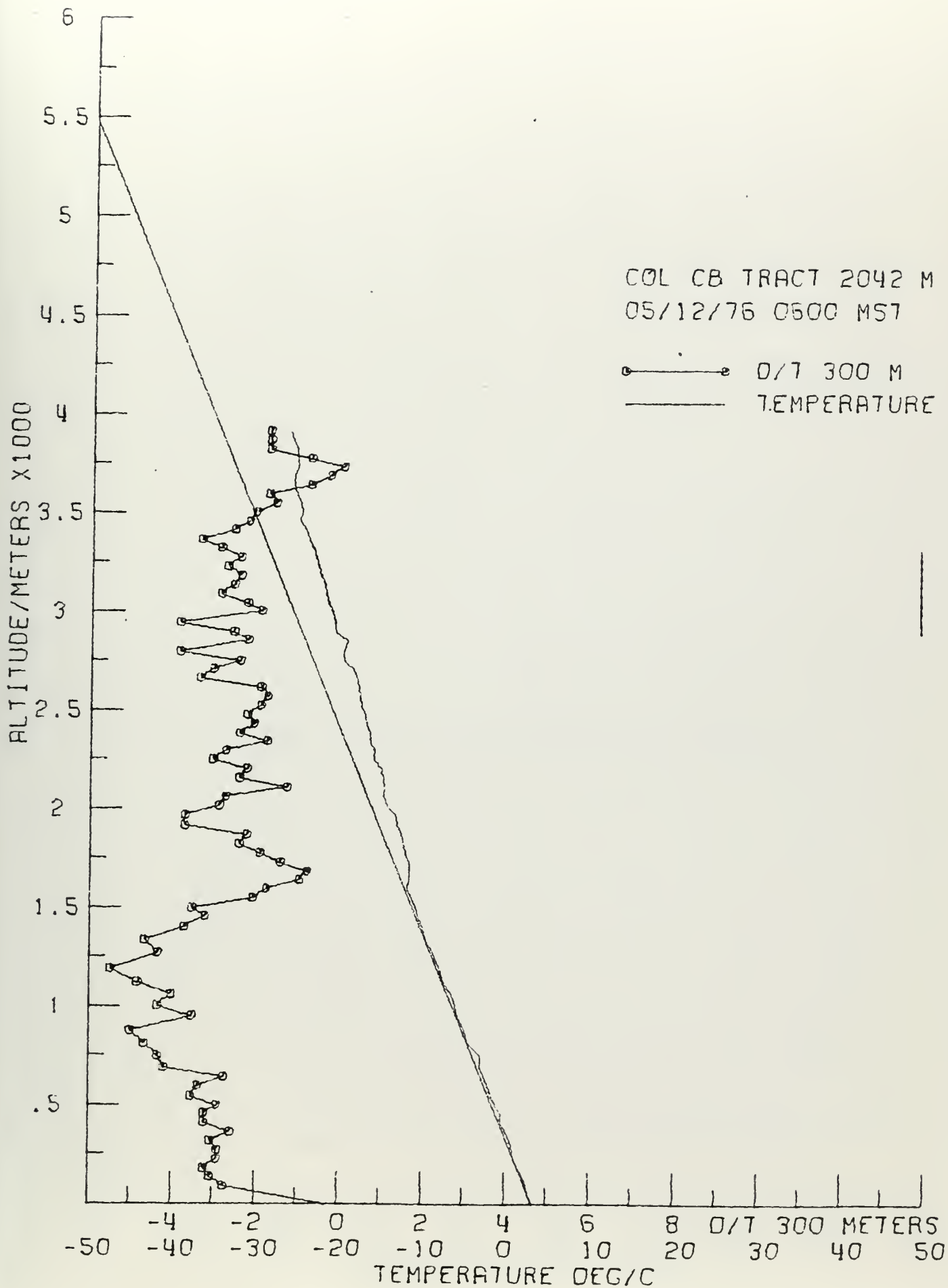




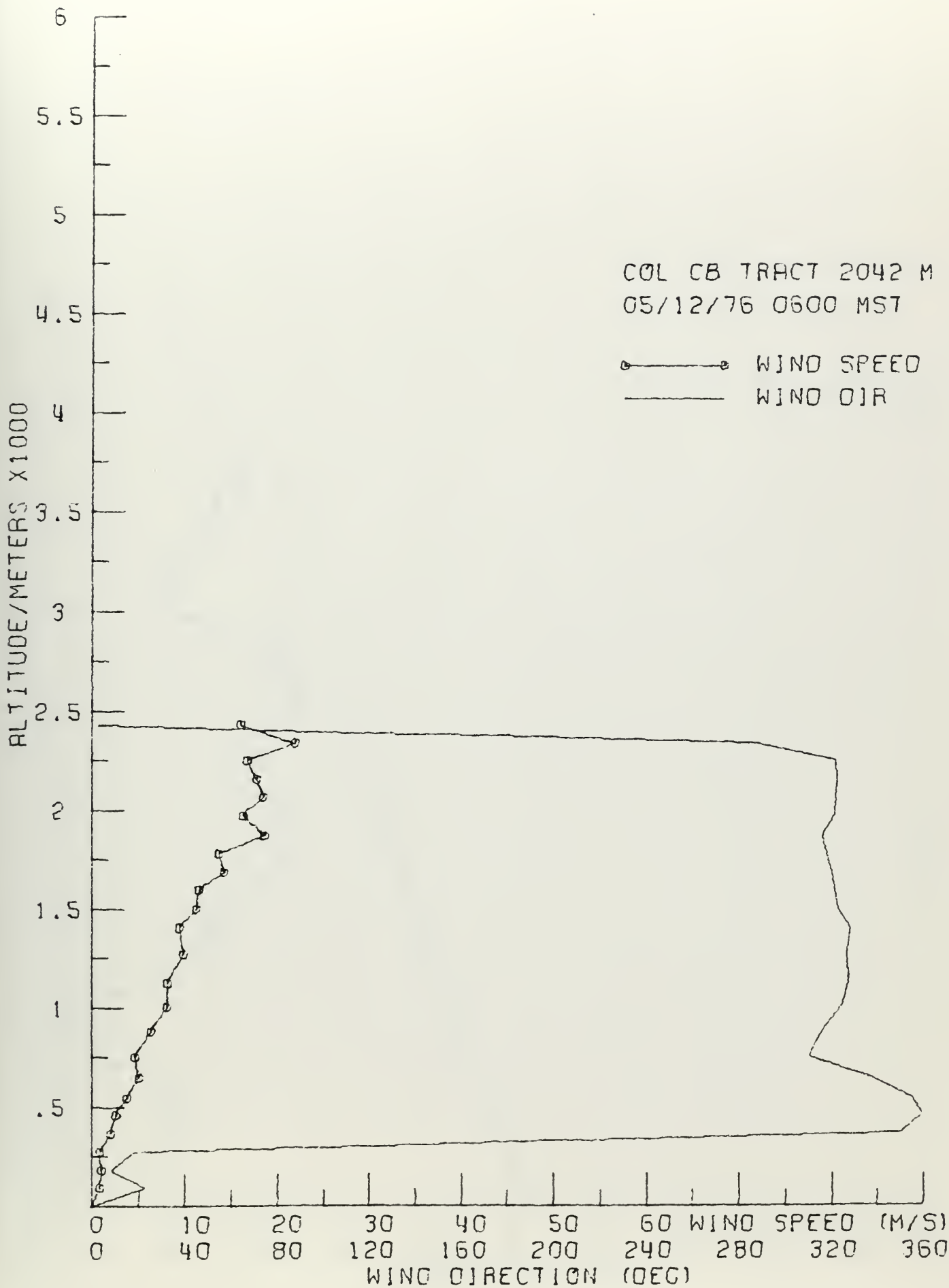




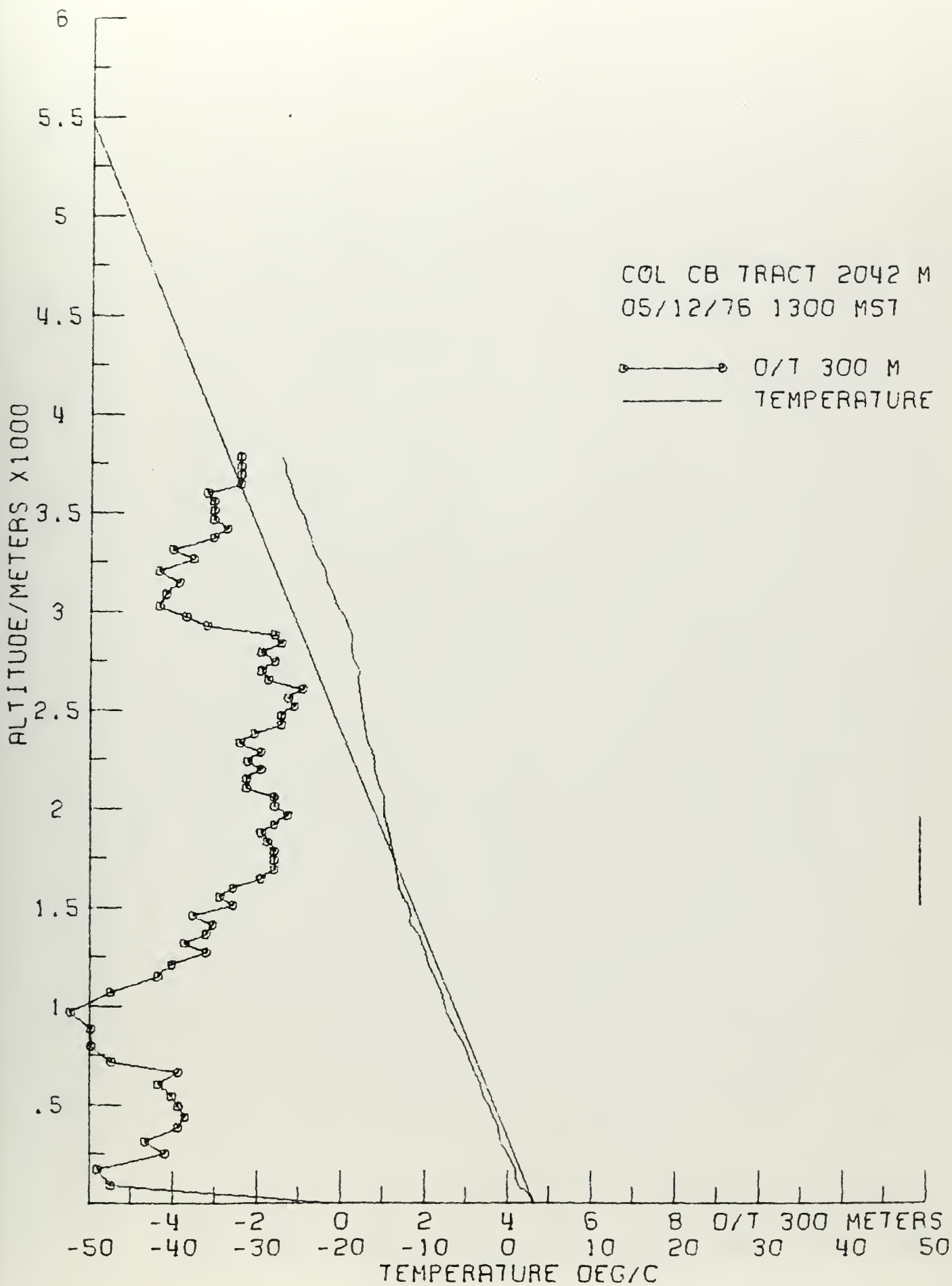






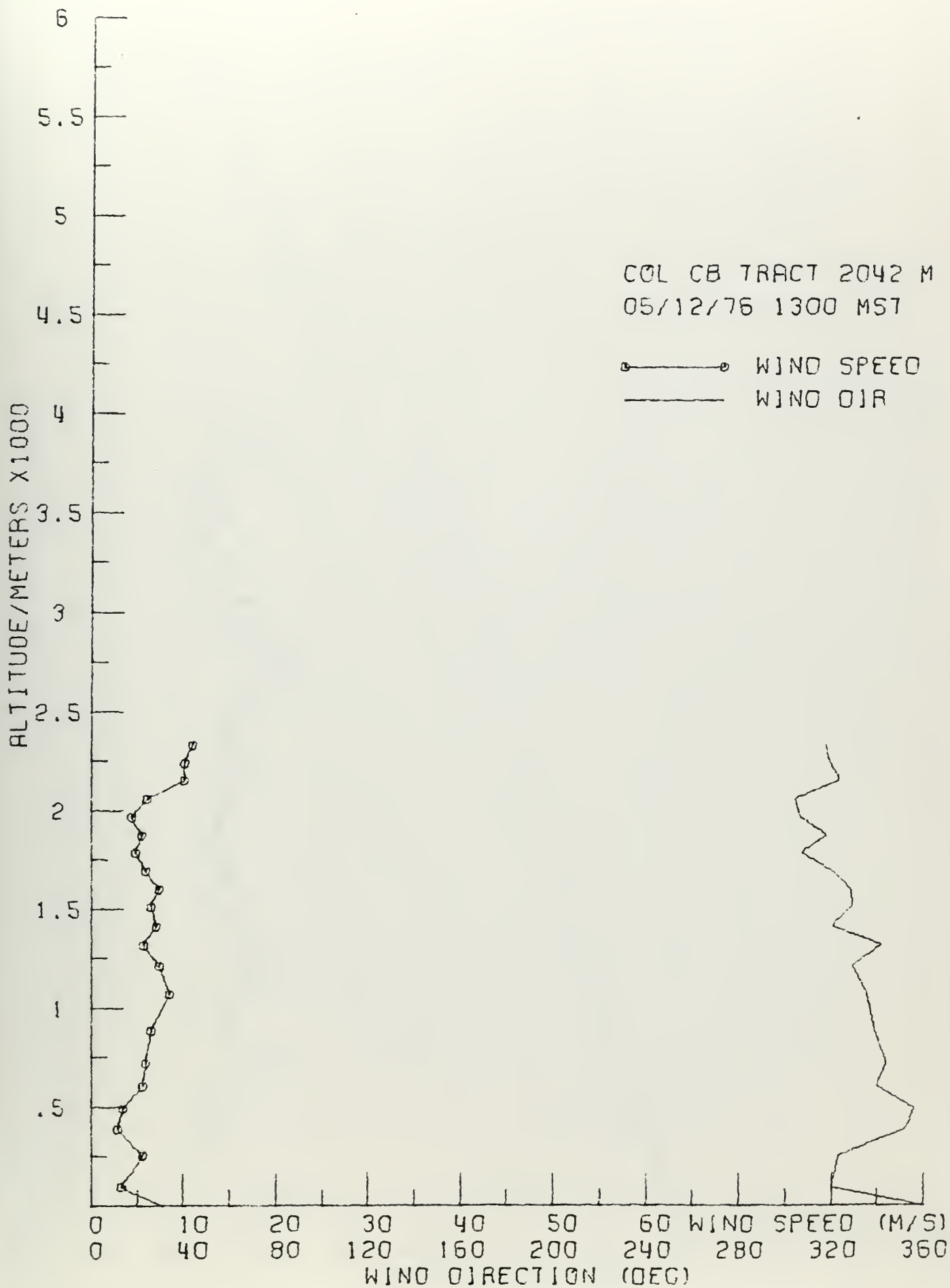




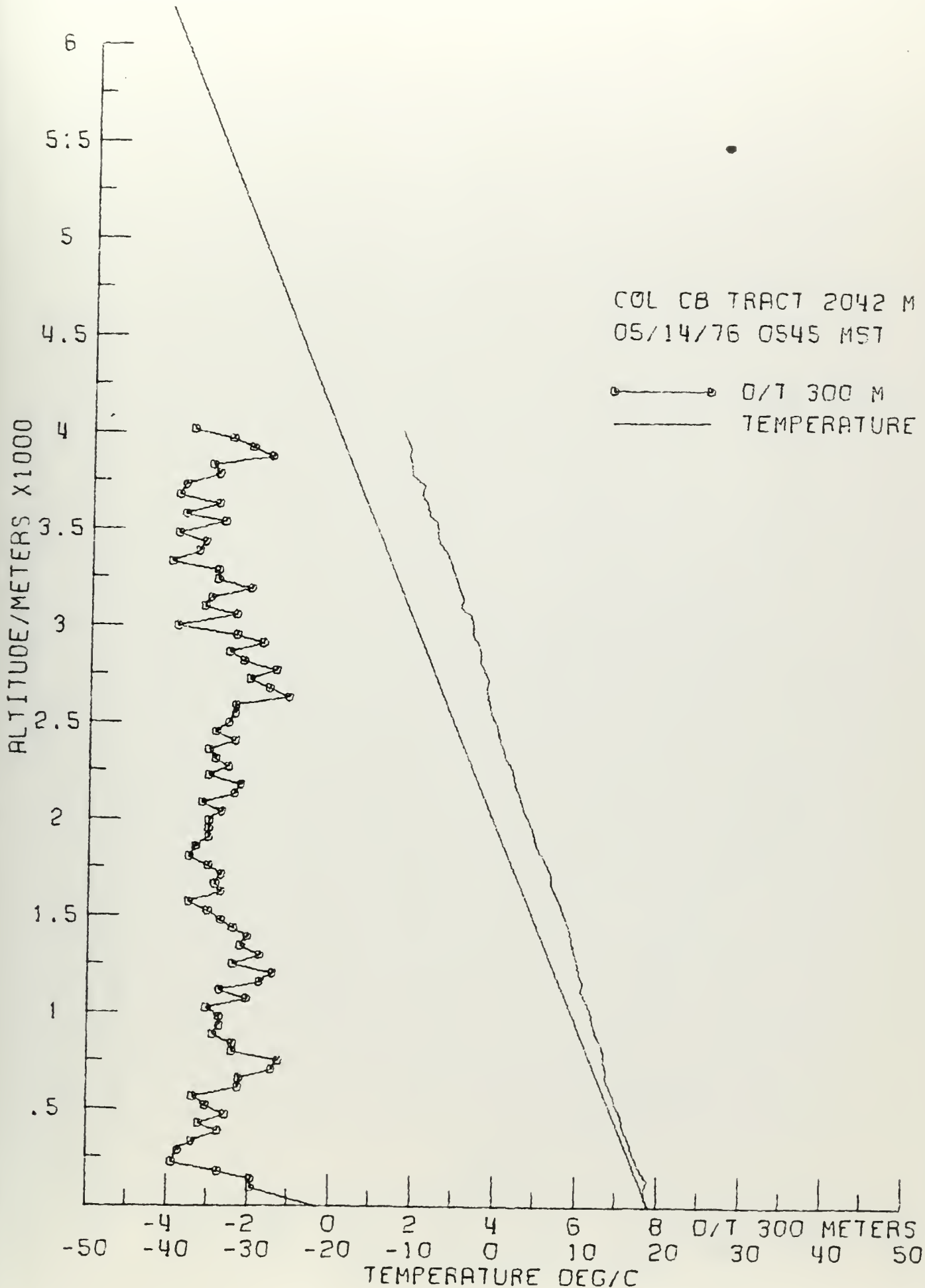




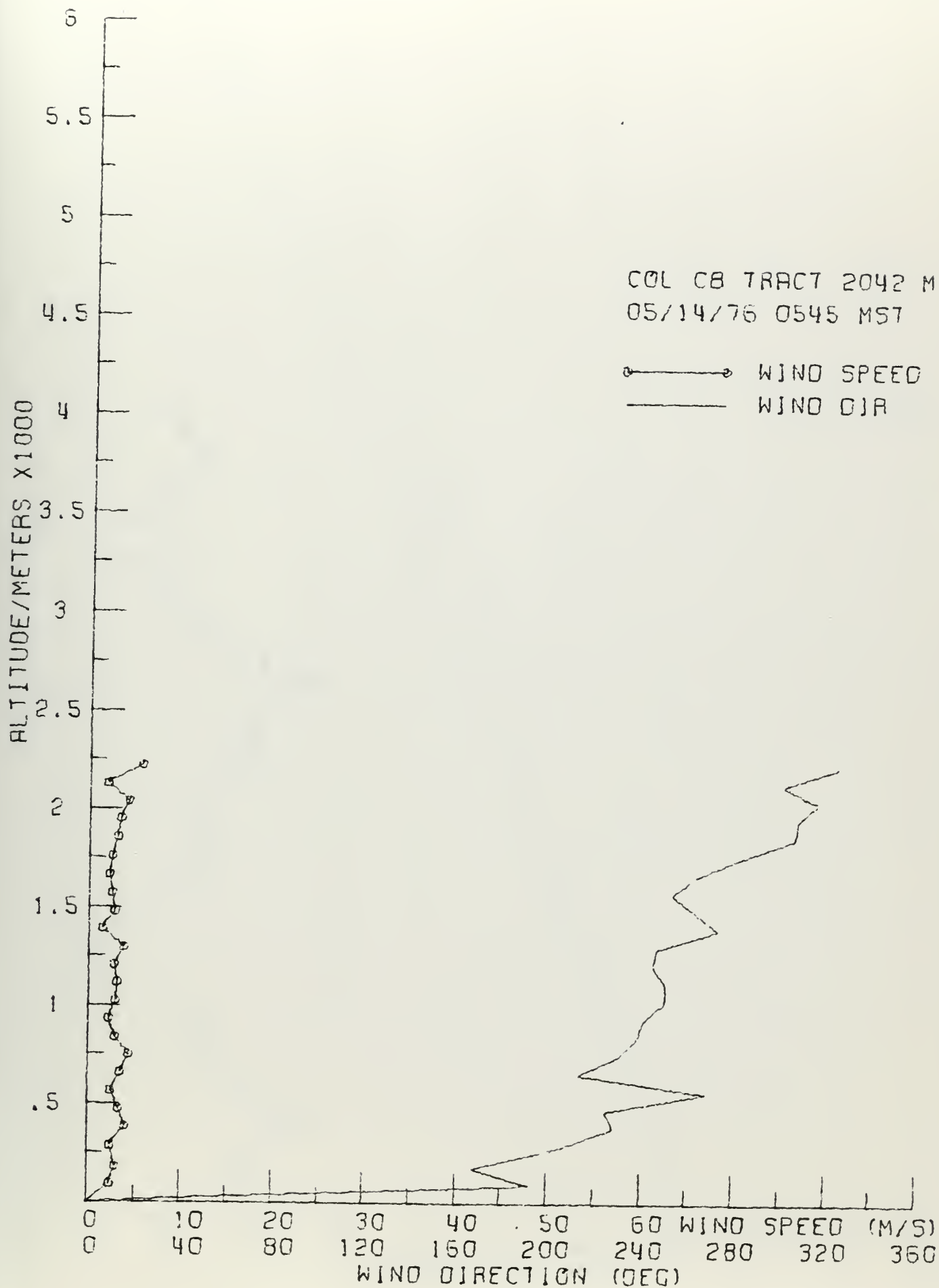




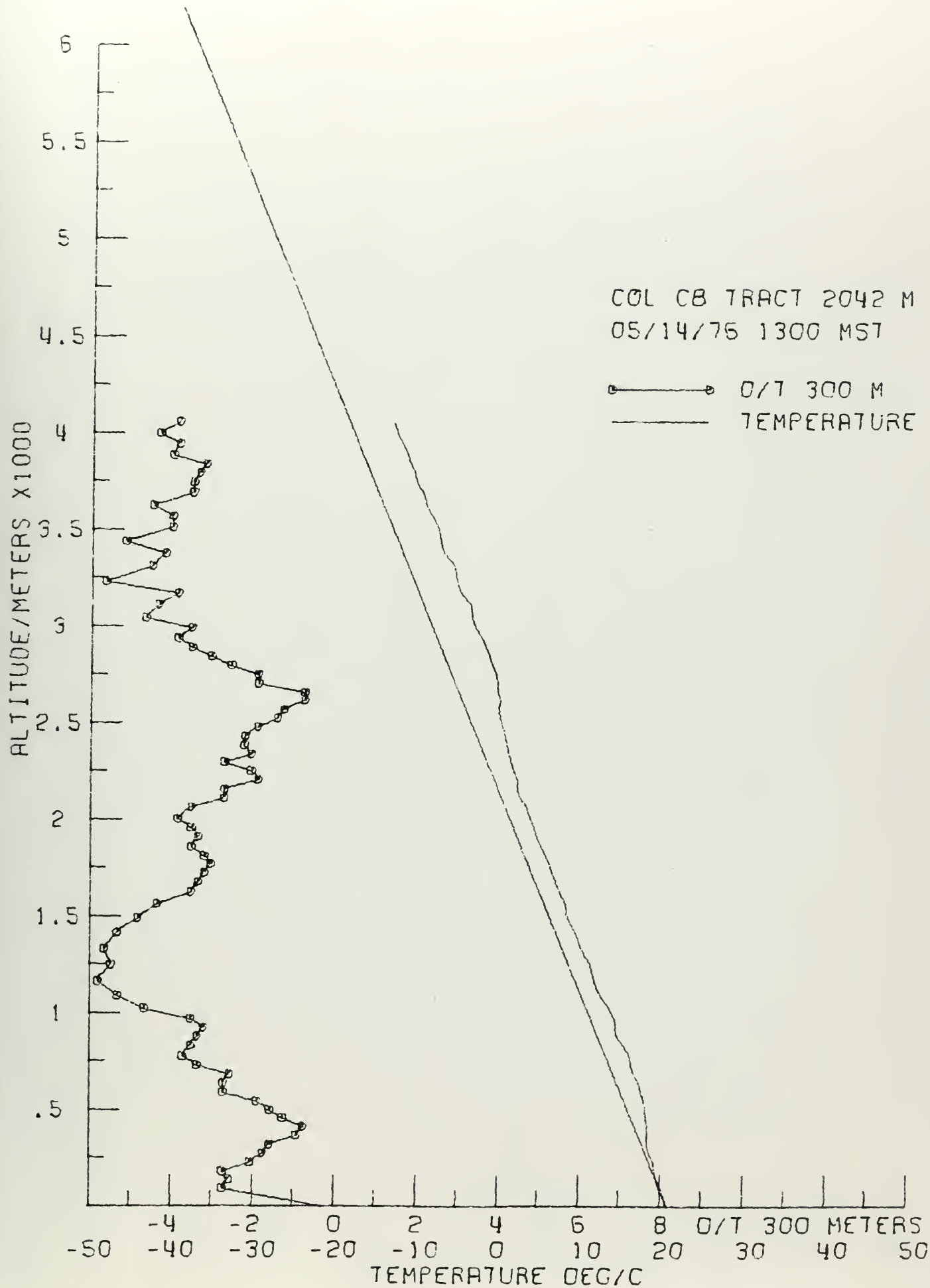






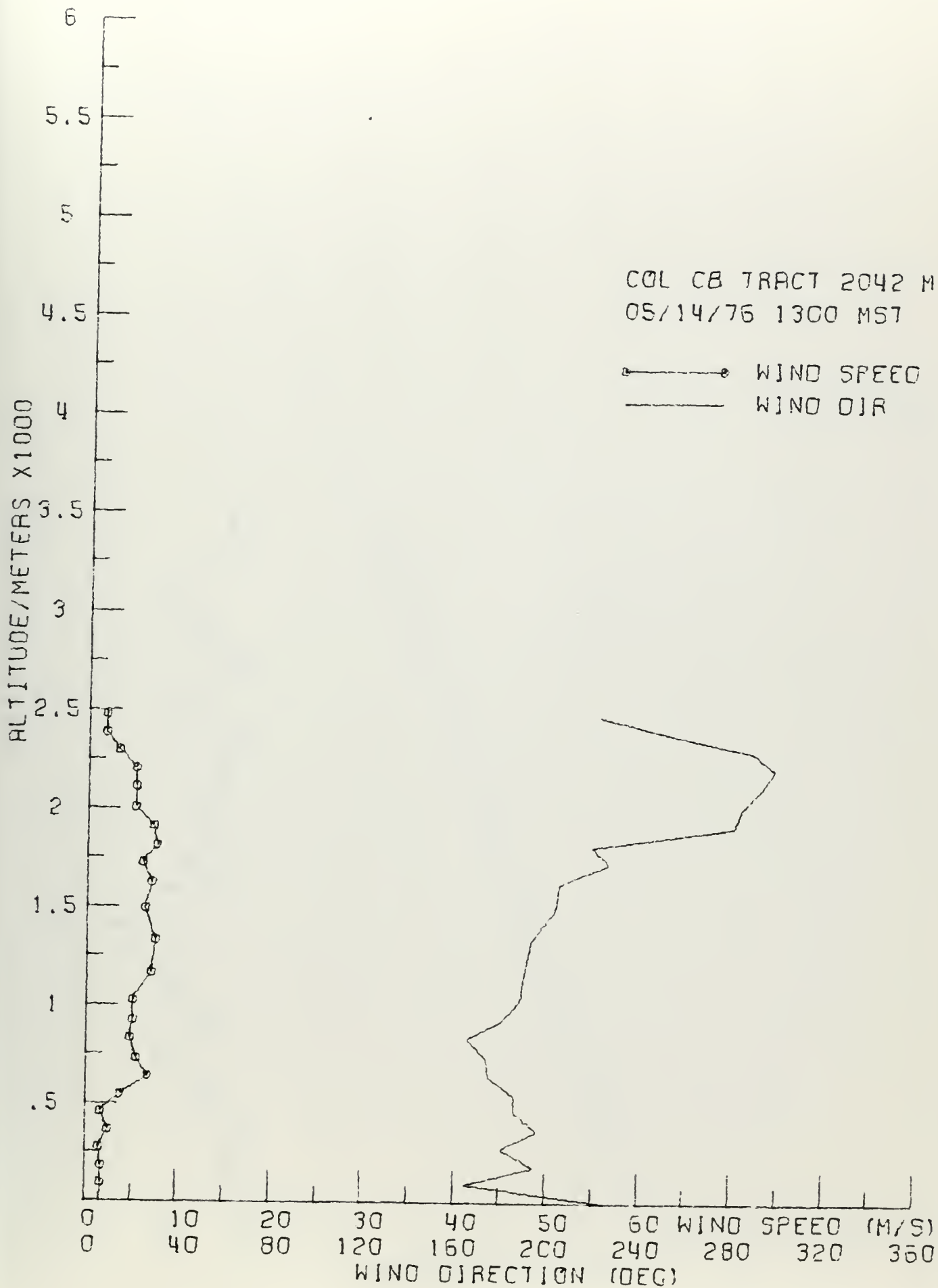




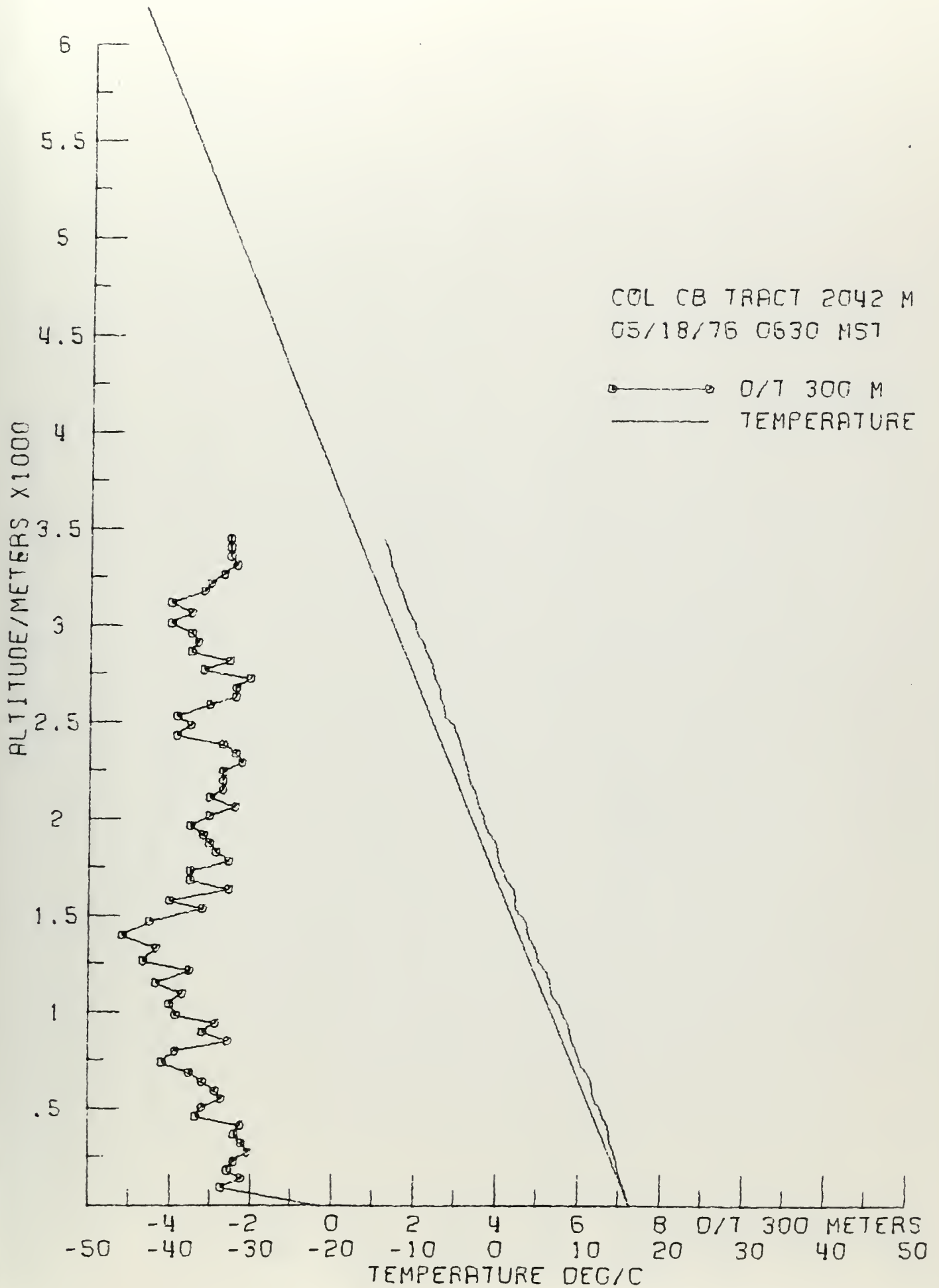




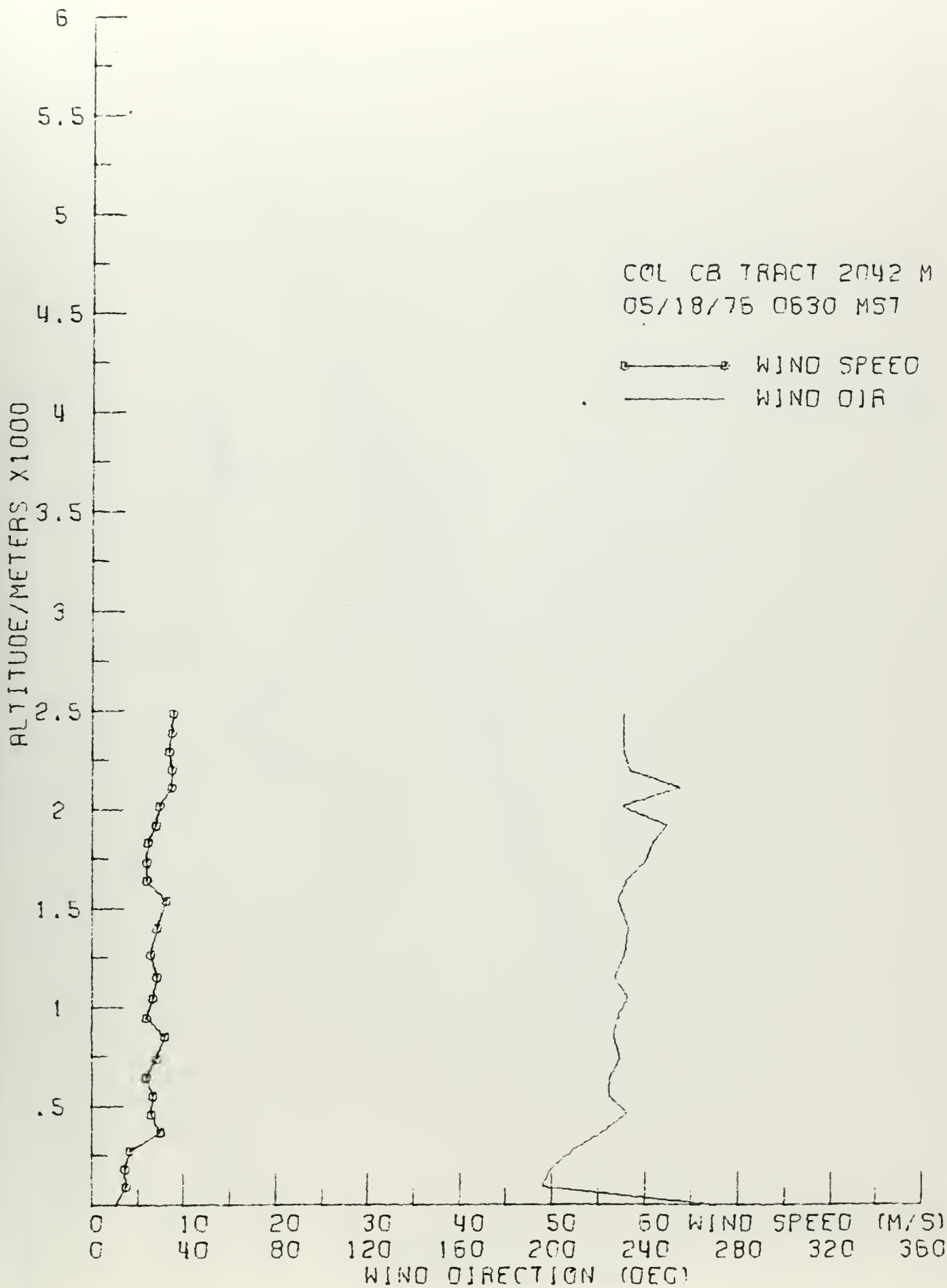






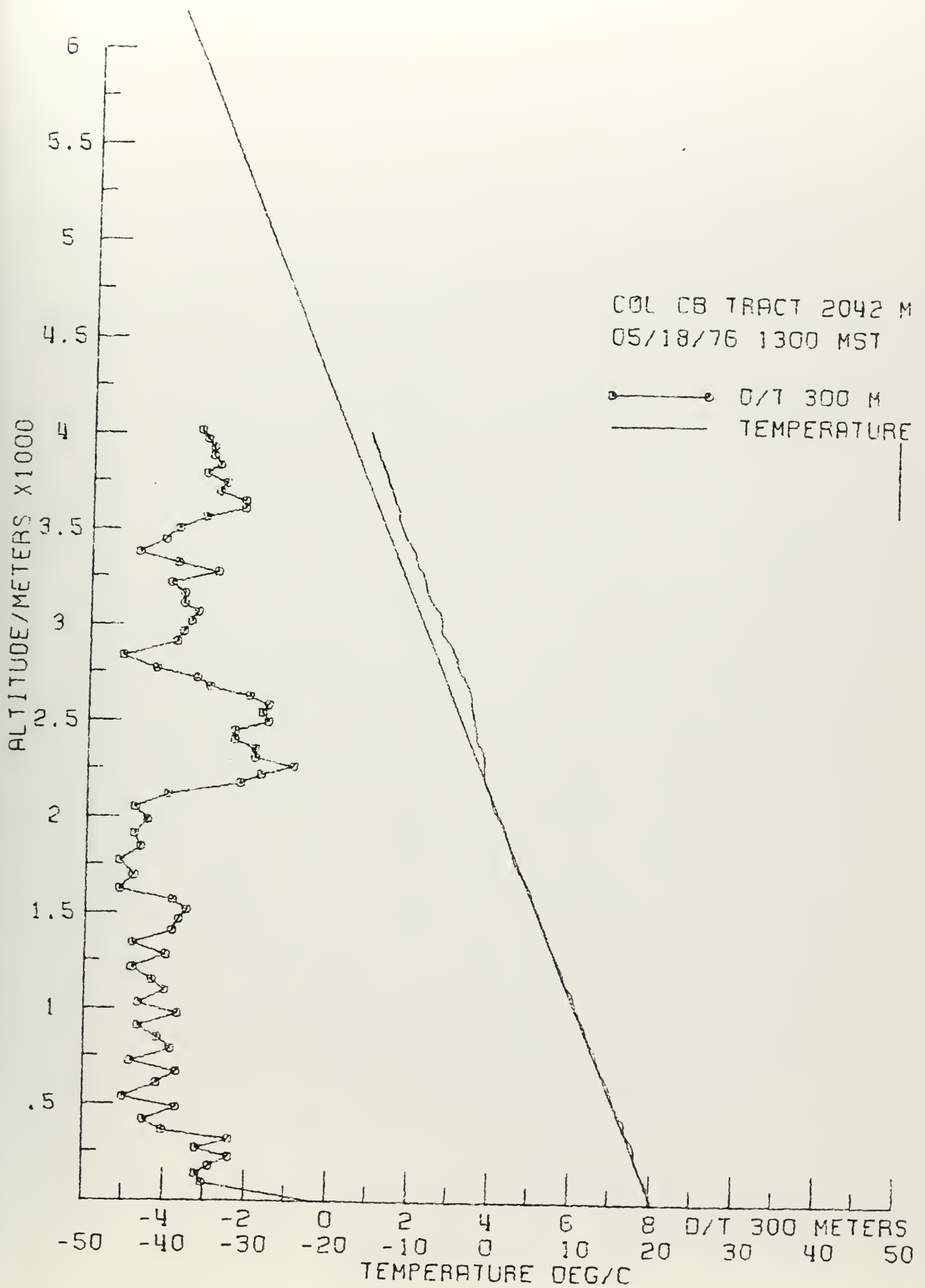




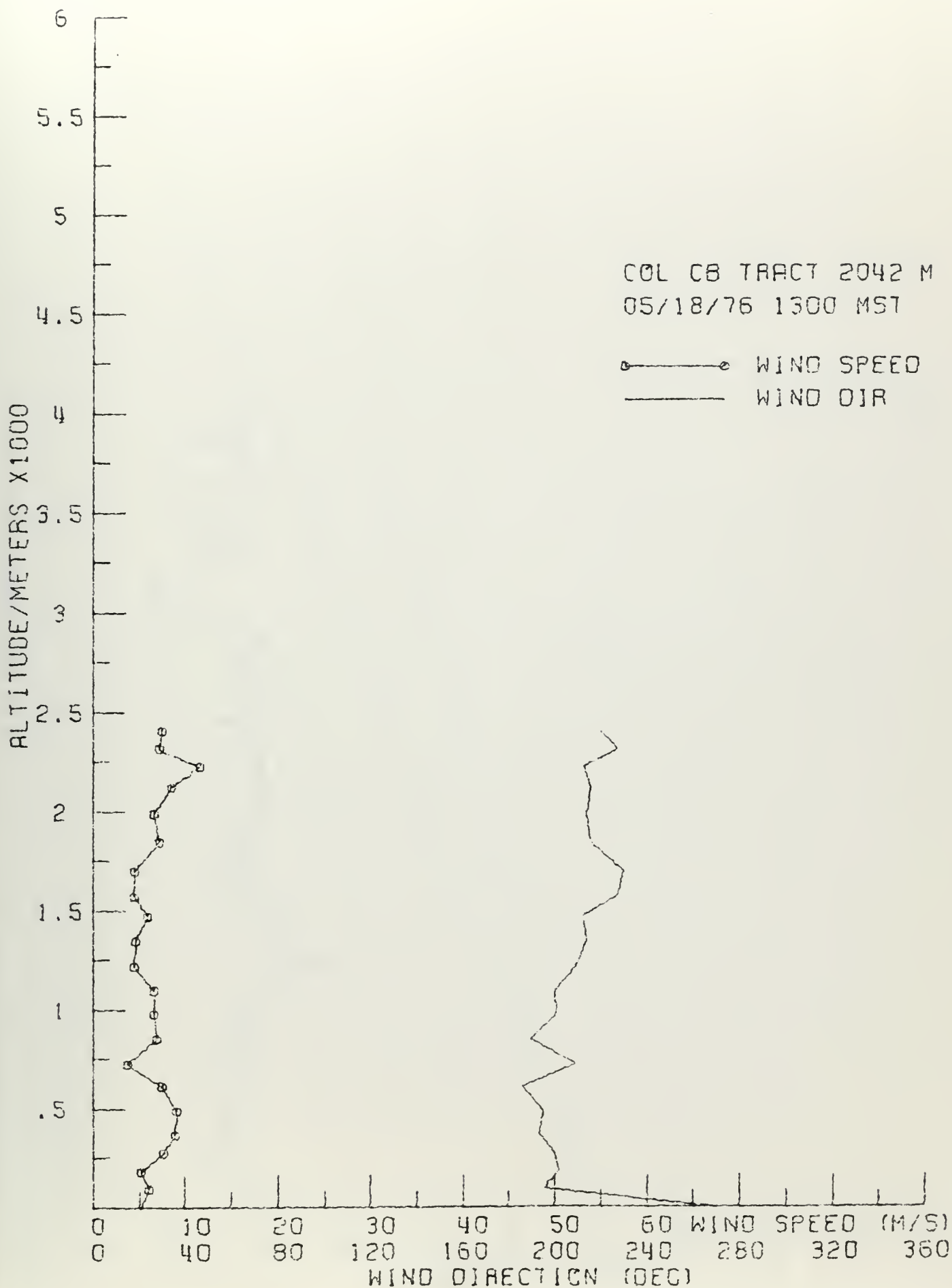




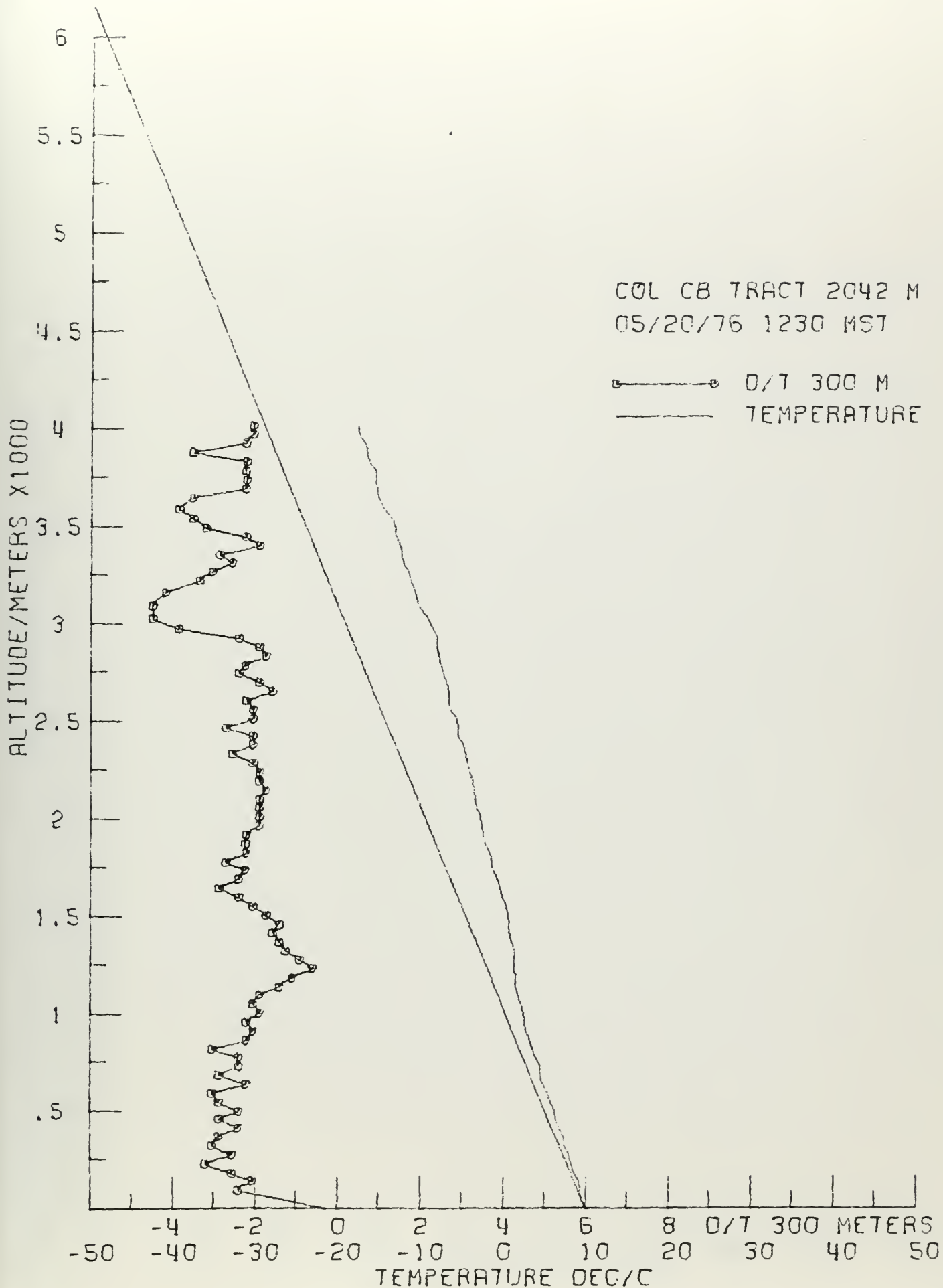




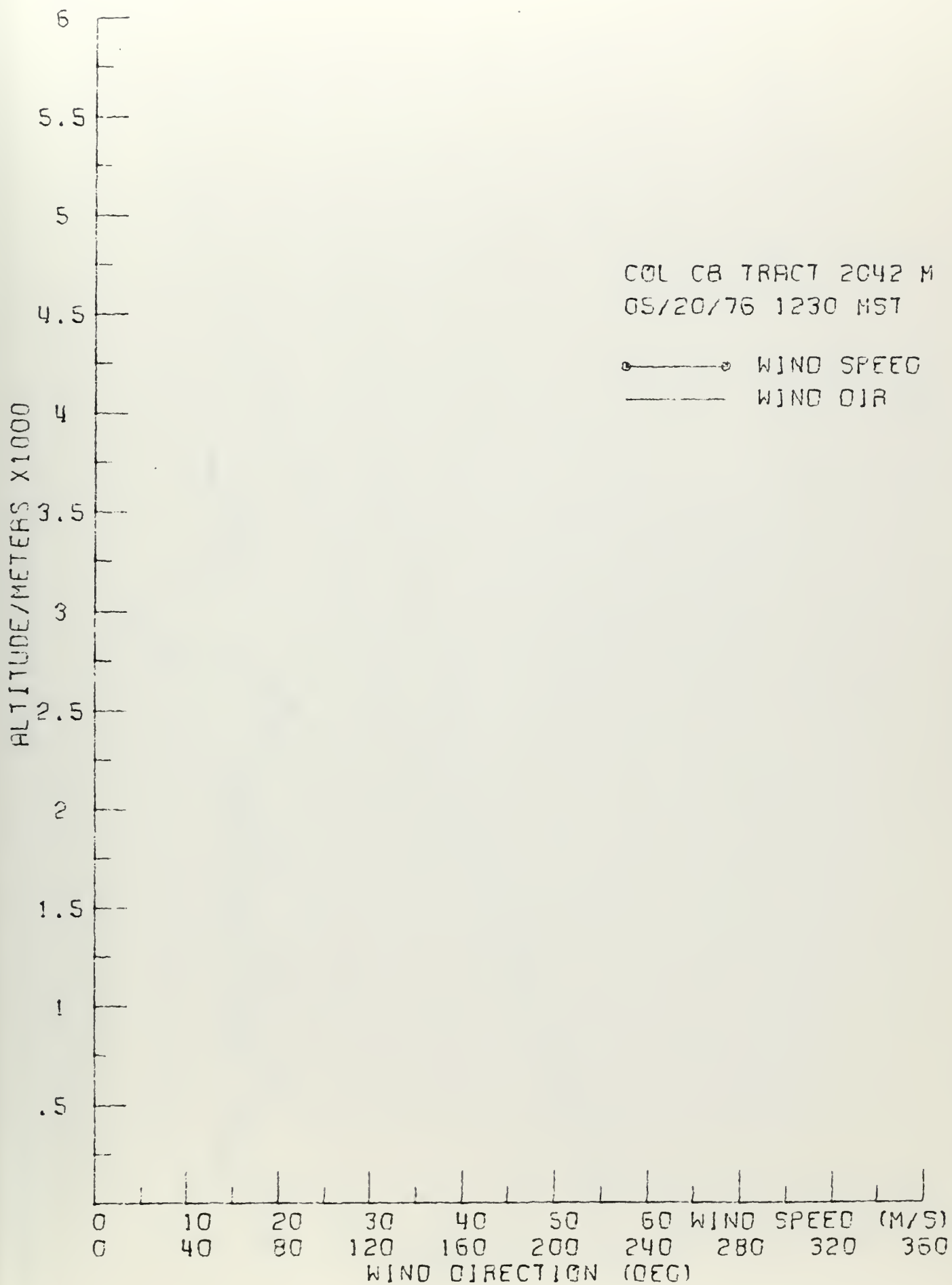






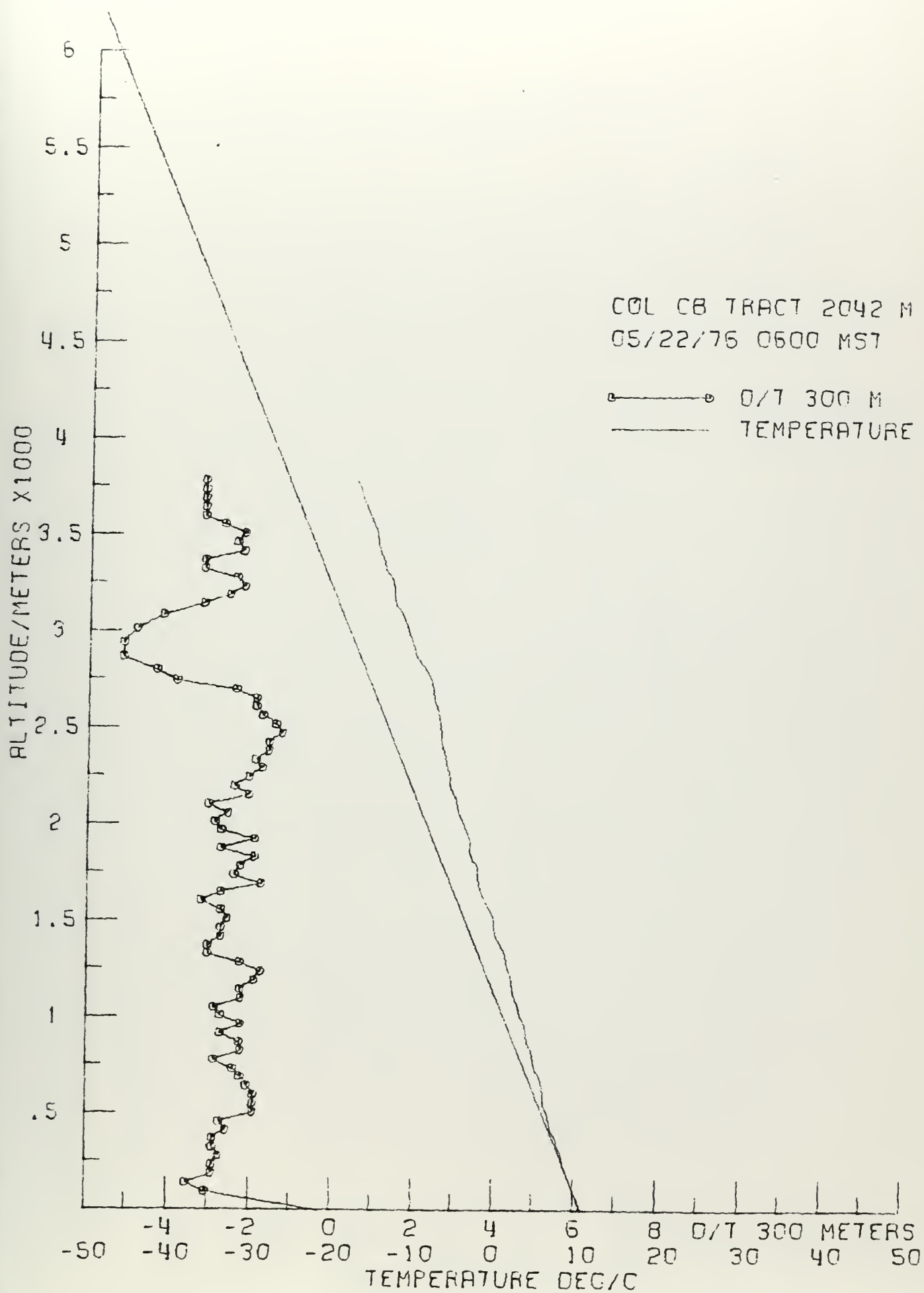




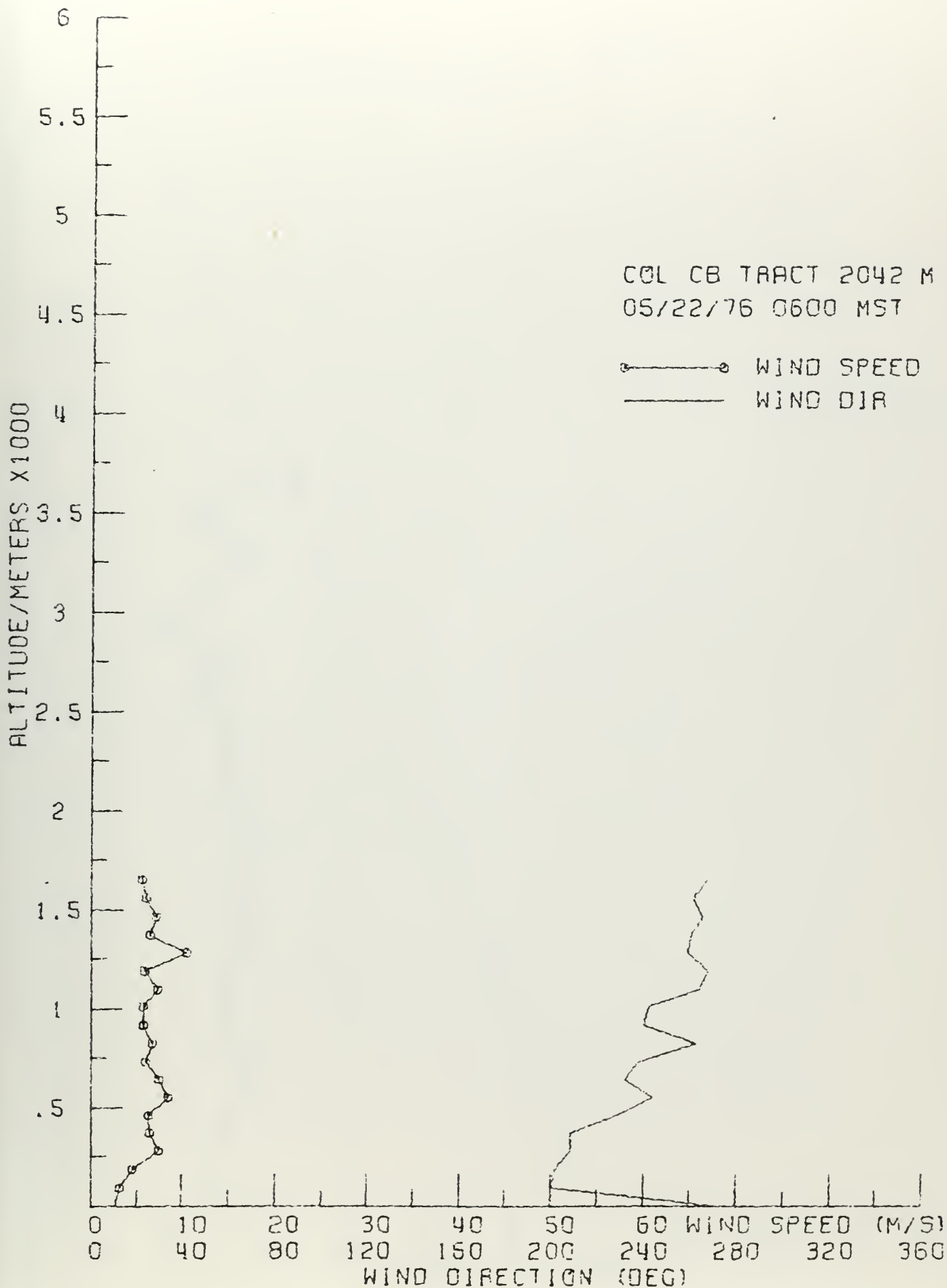




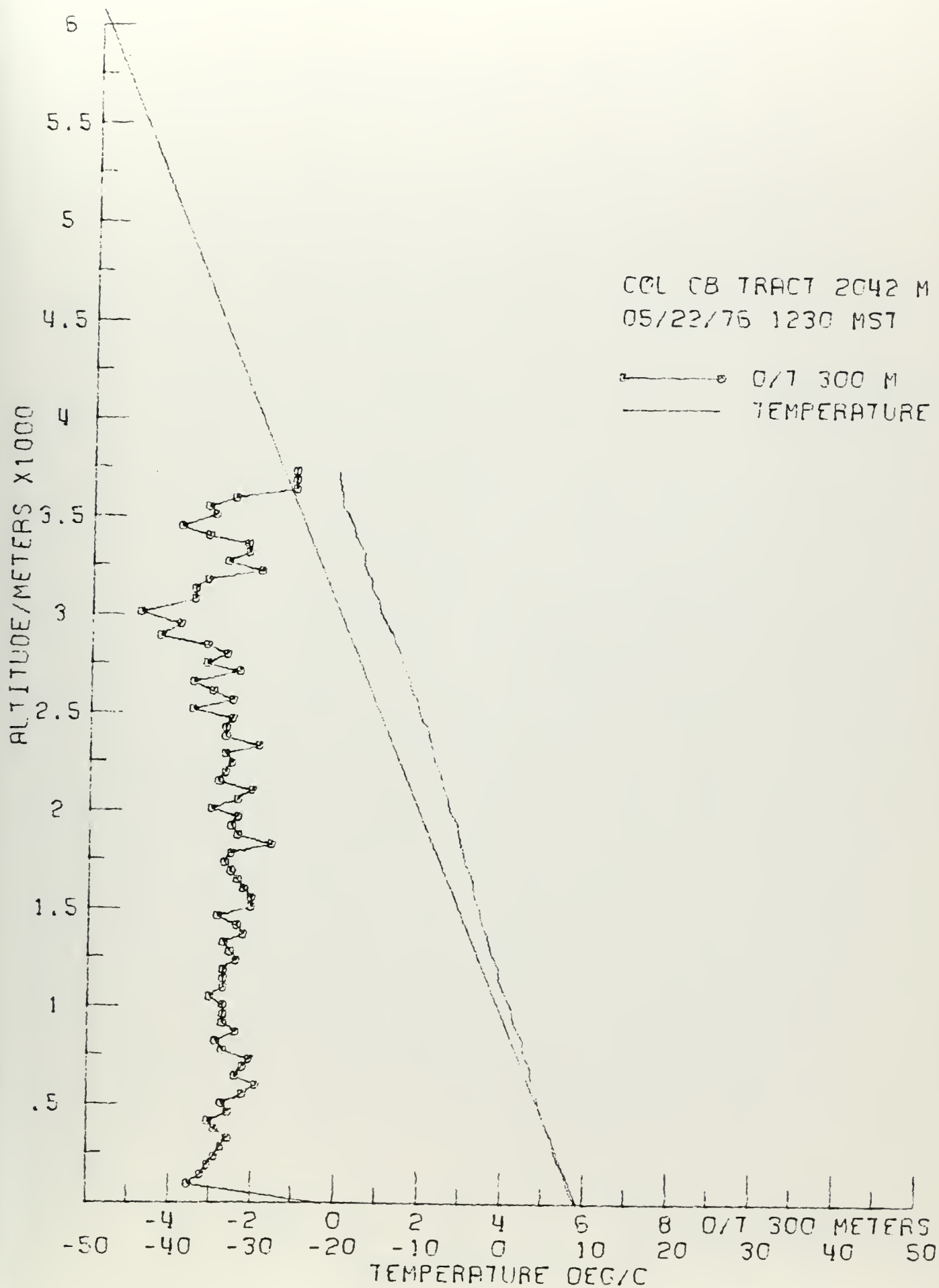






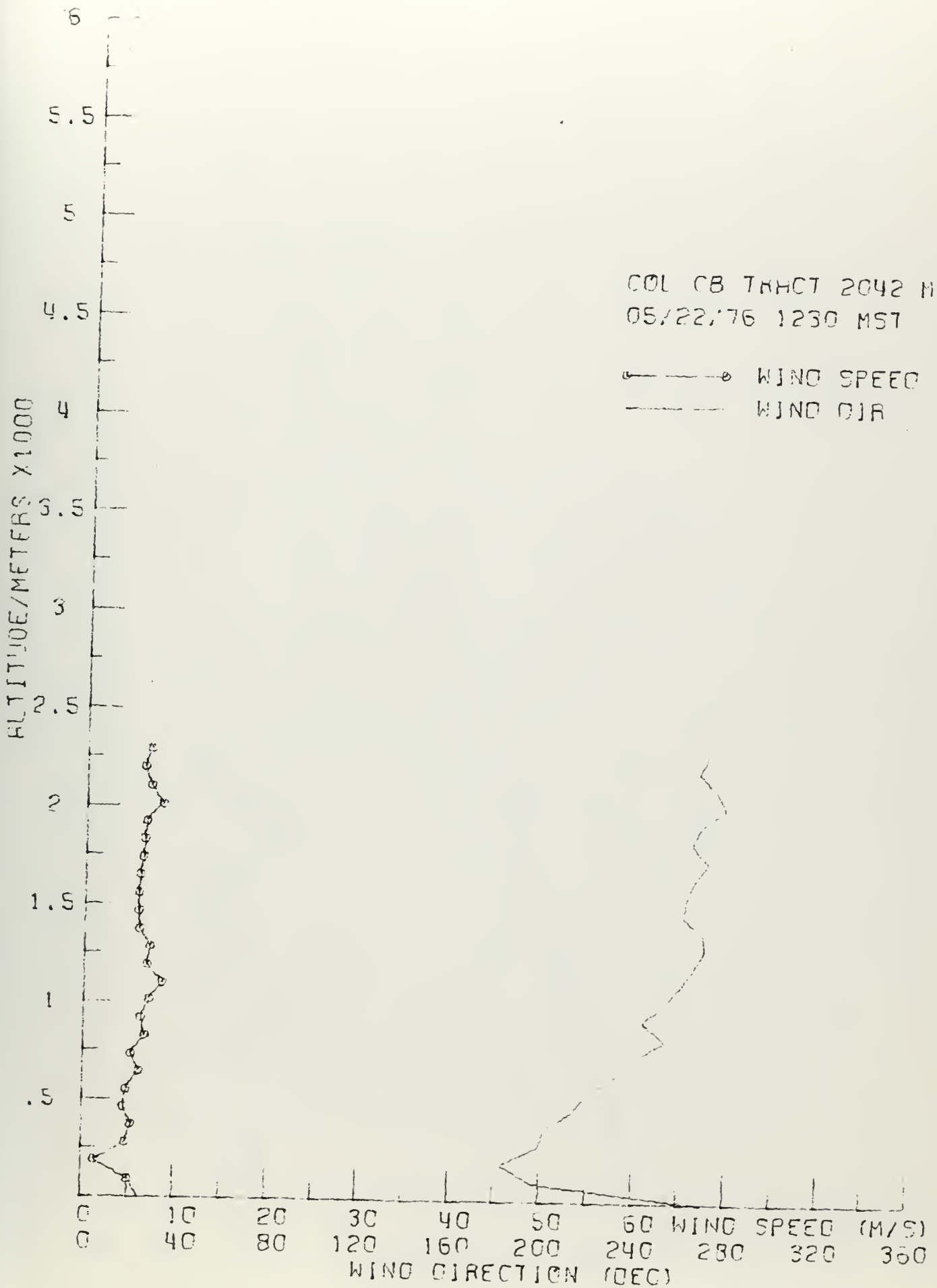




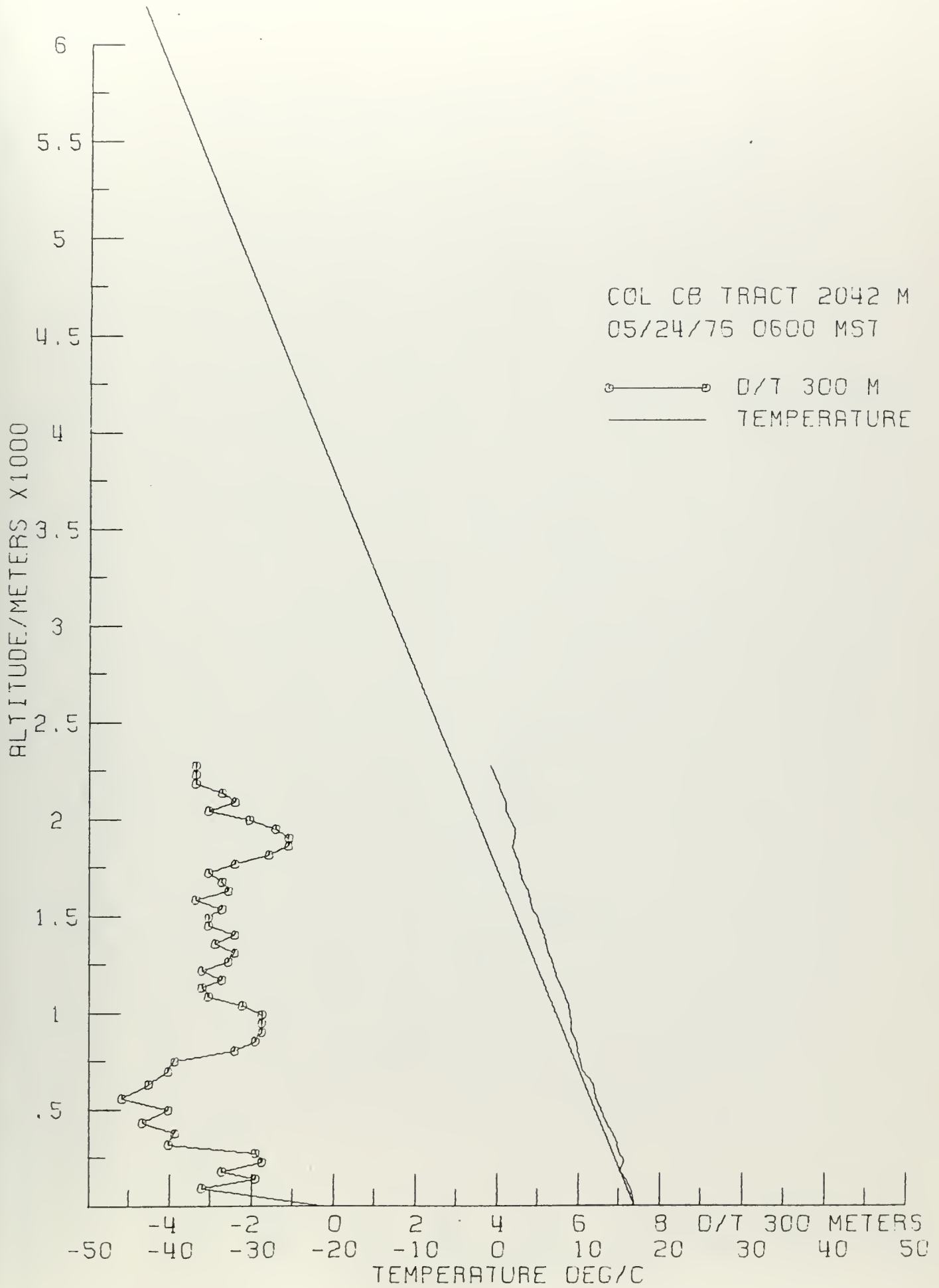




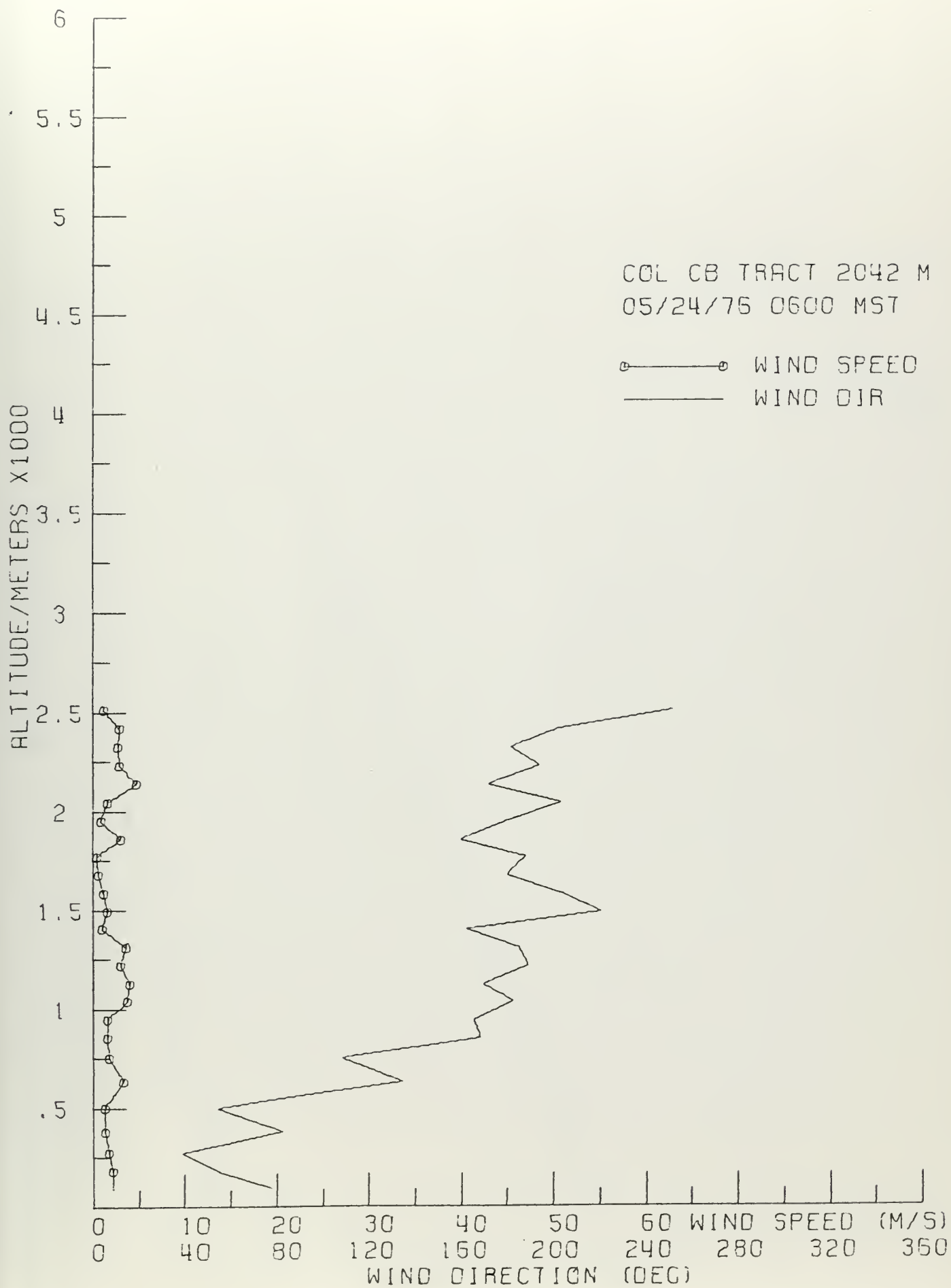




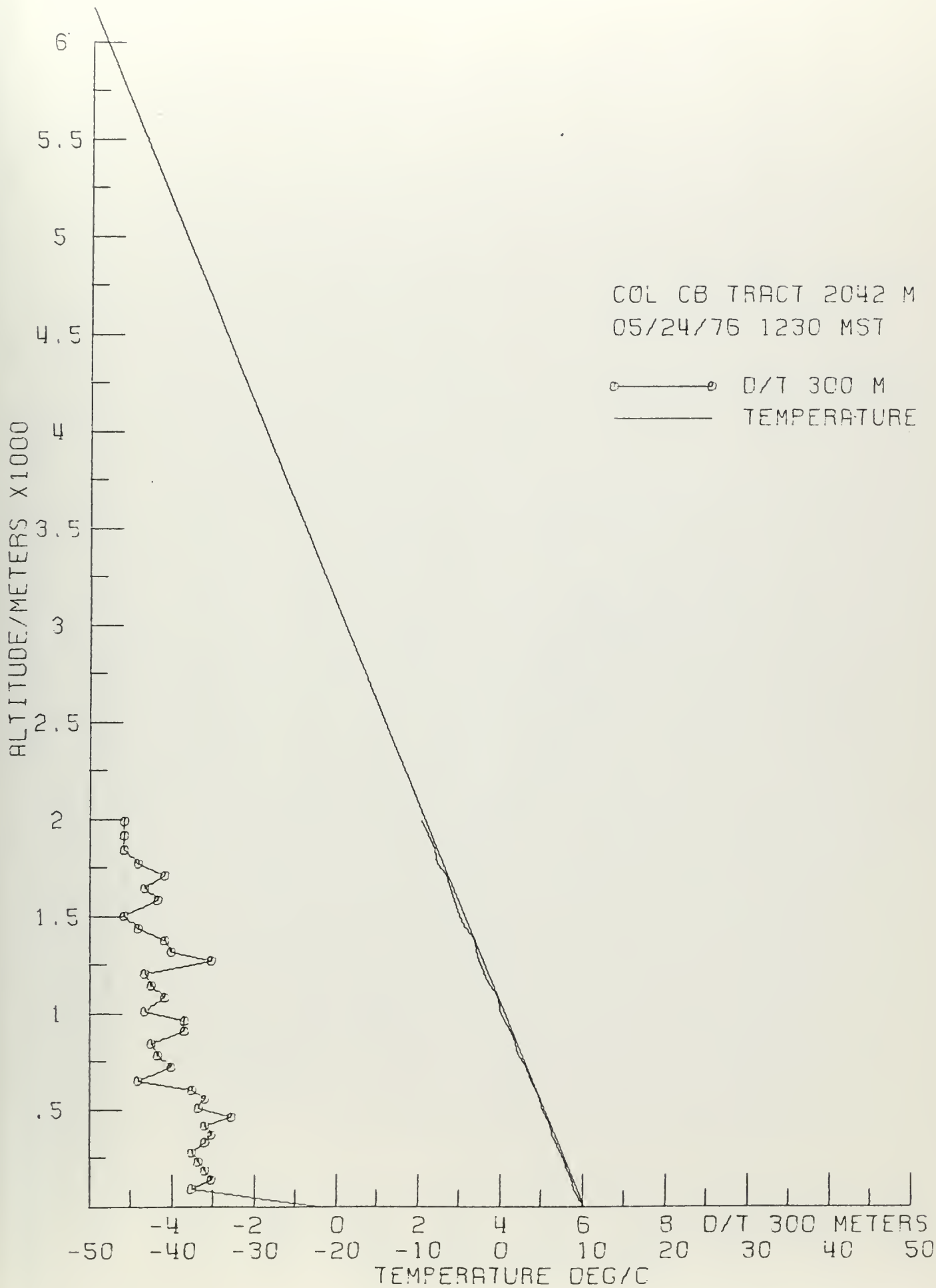






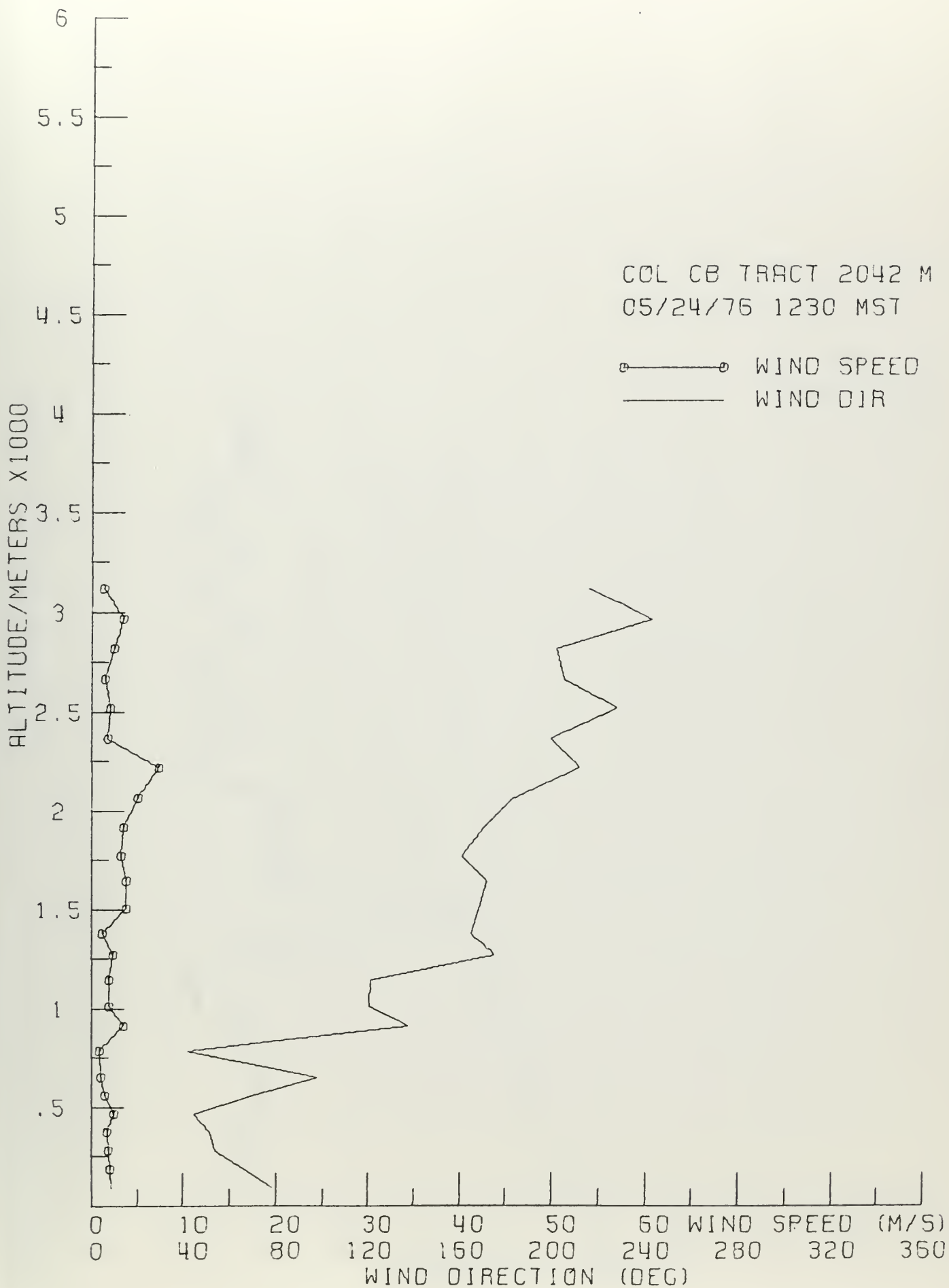




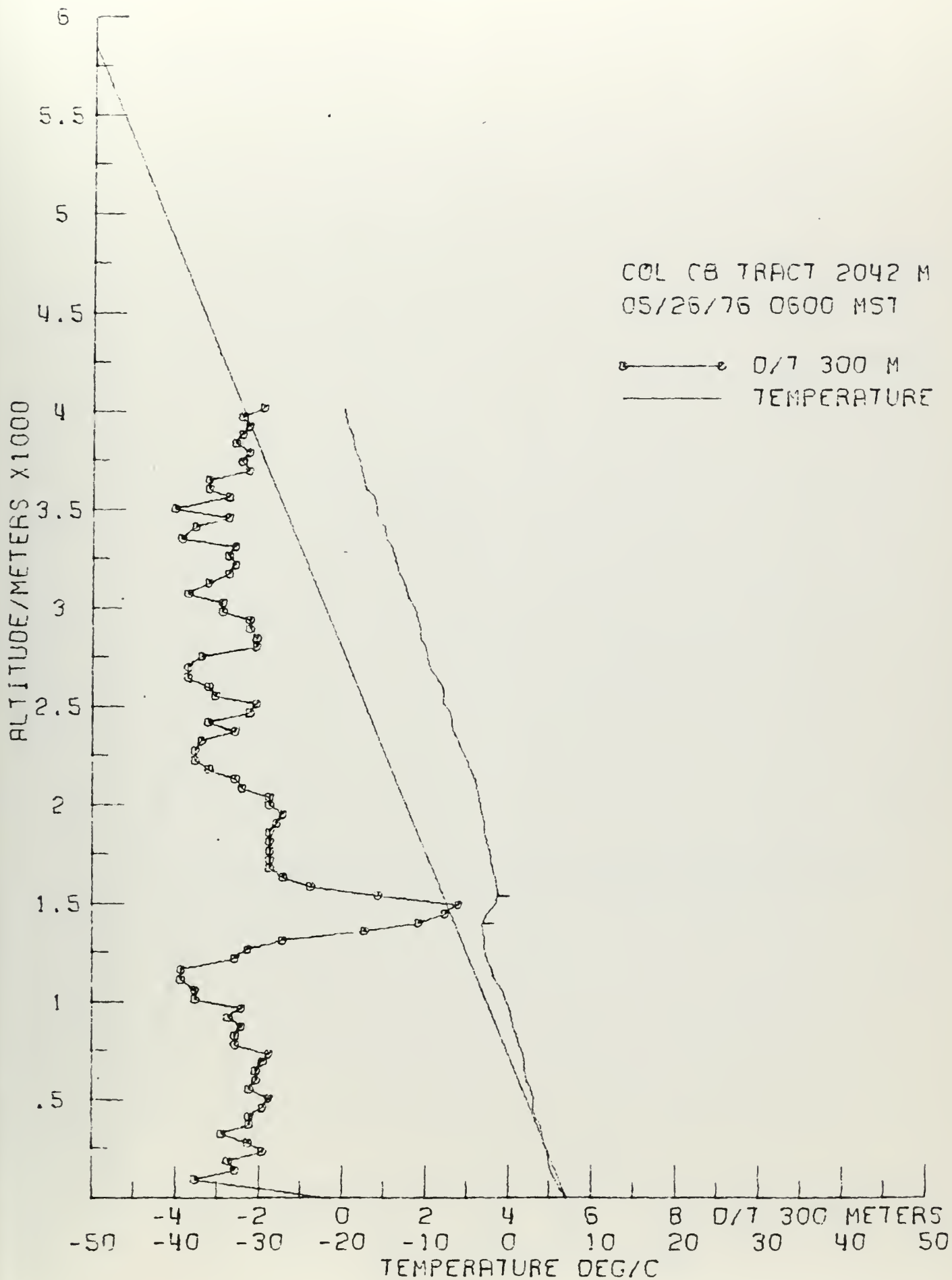




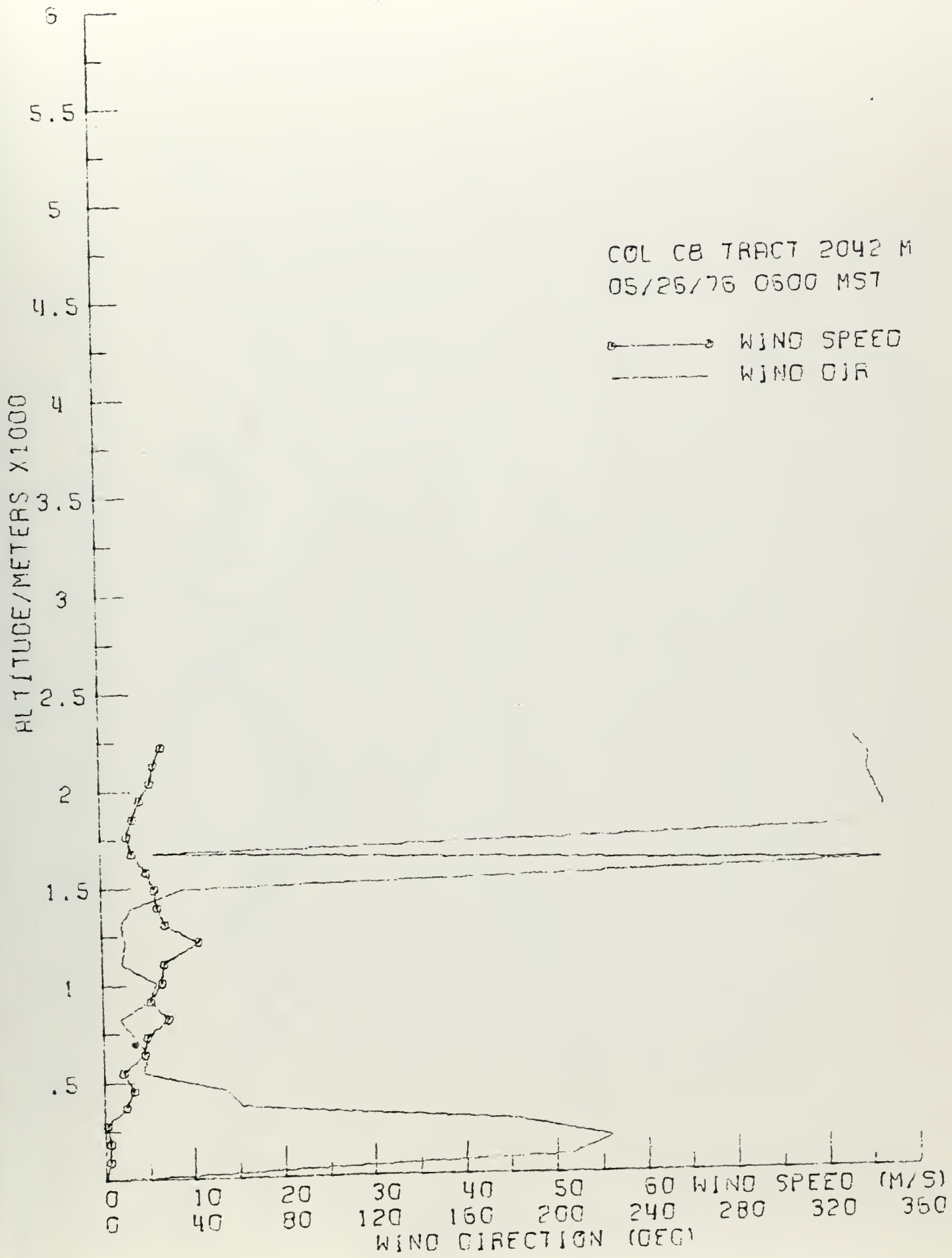










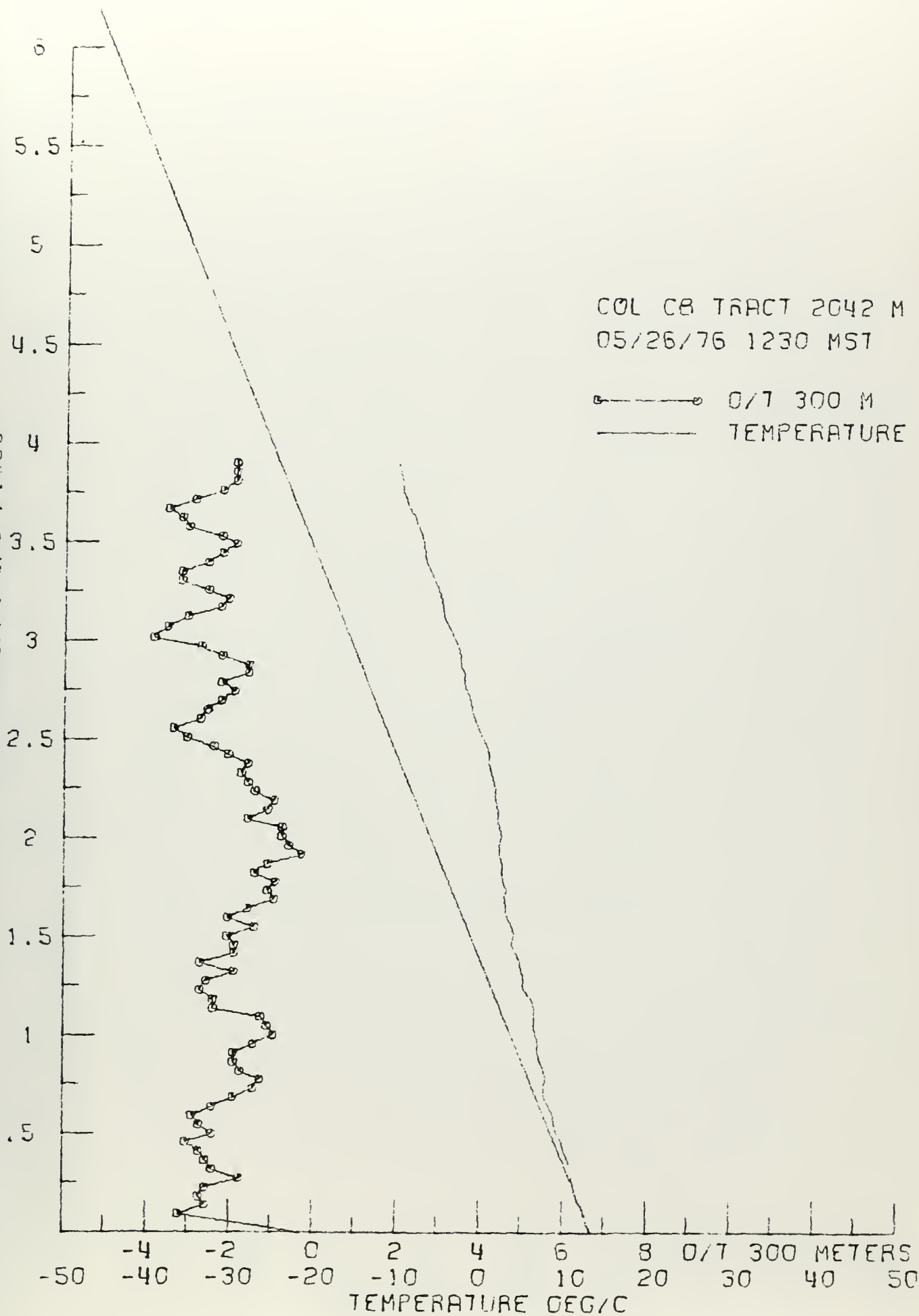




ALTITUDE/METERS X1000

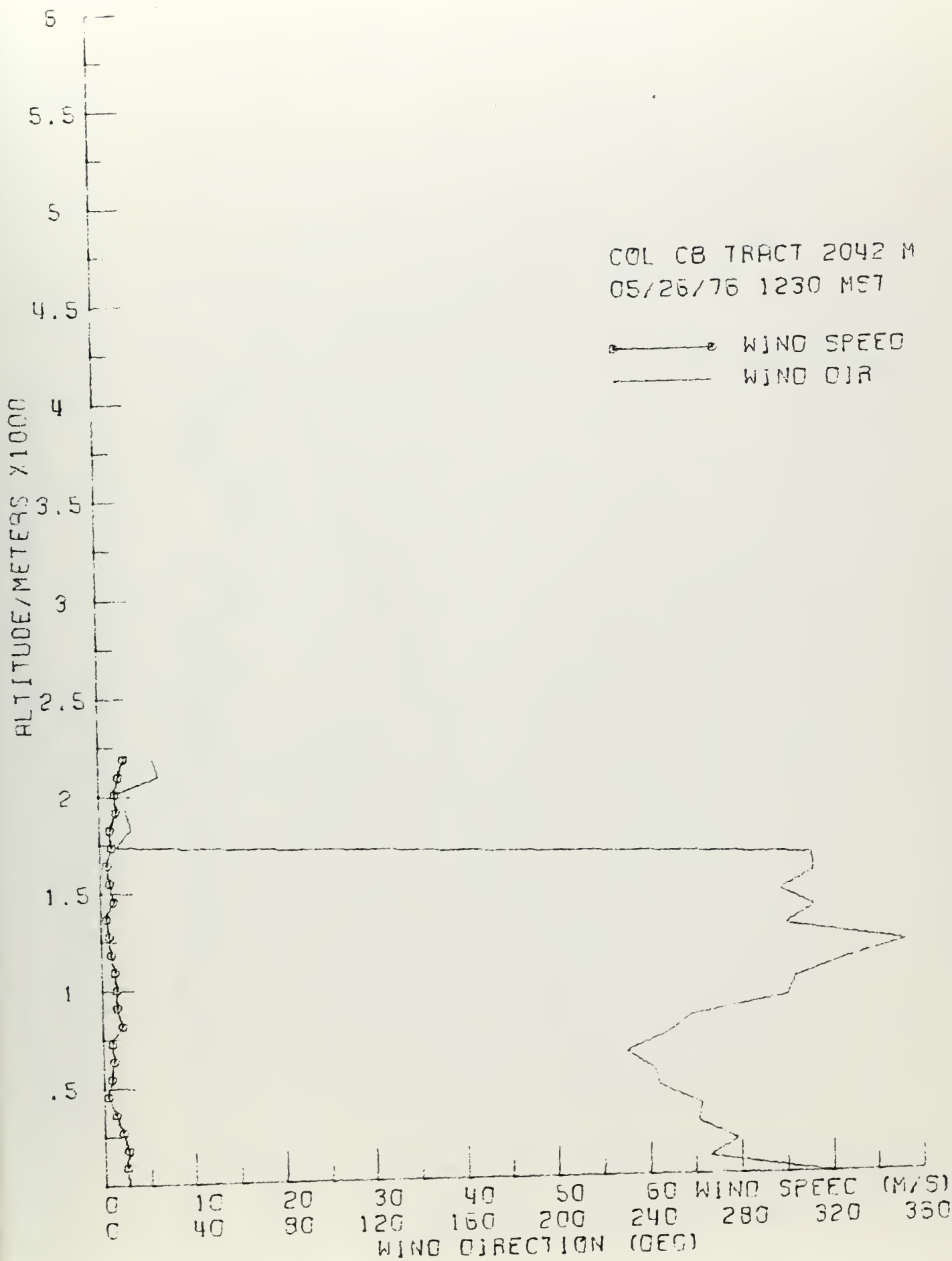
COL CB TRACT 2042 M  
05/26/76 1230 MST

○ — ○ 0/7 300 M  
— TEMPERATURE







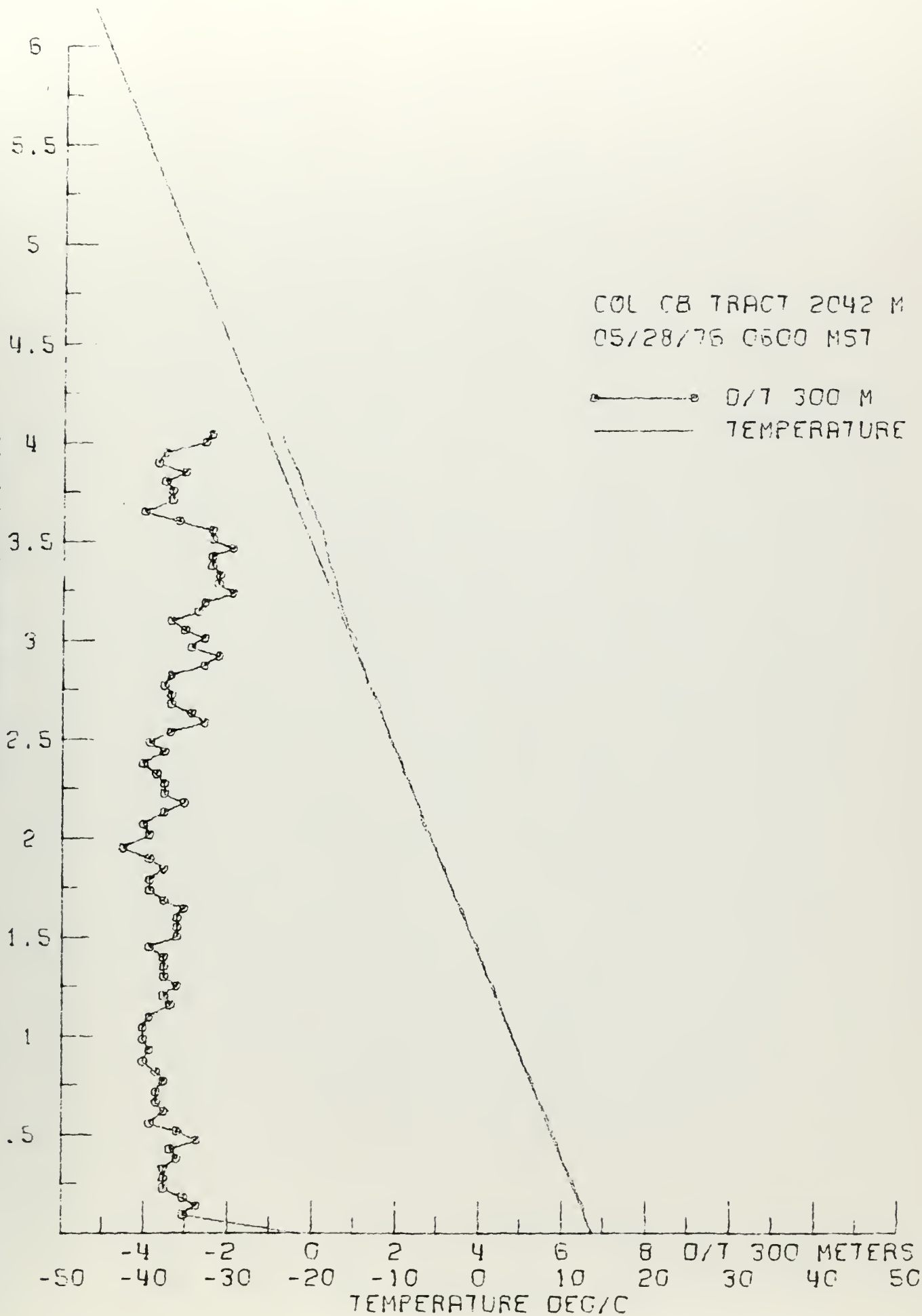




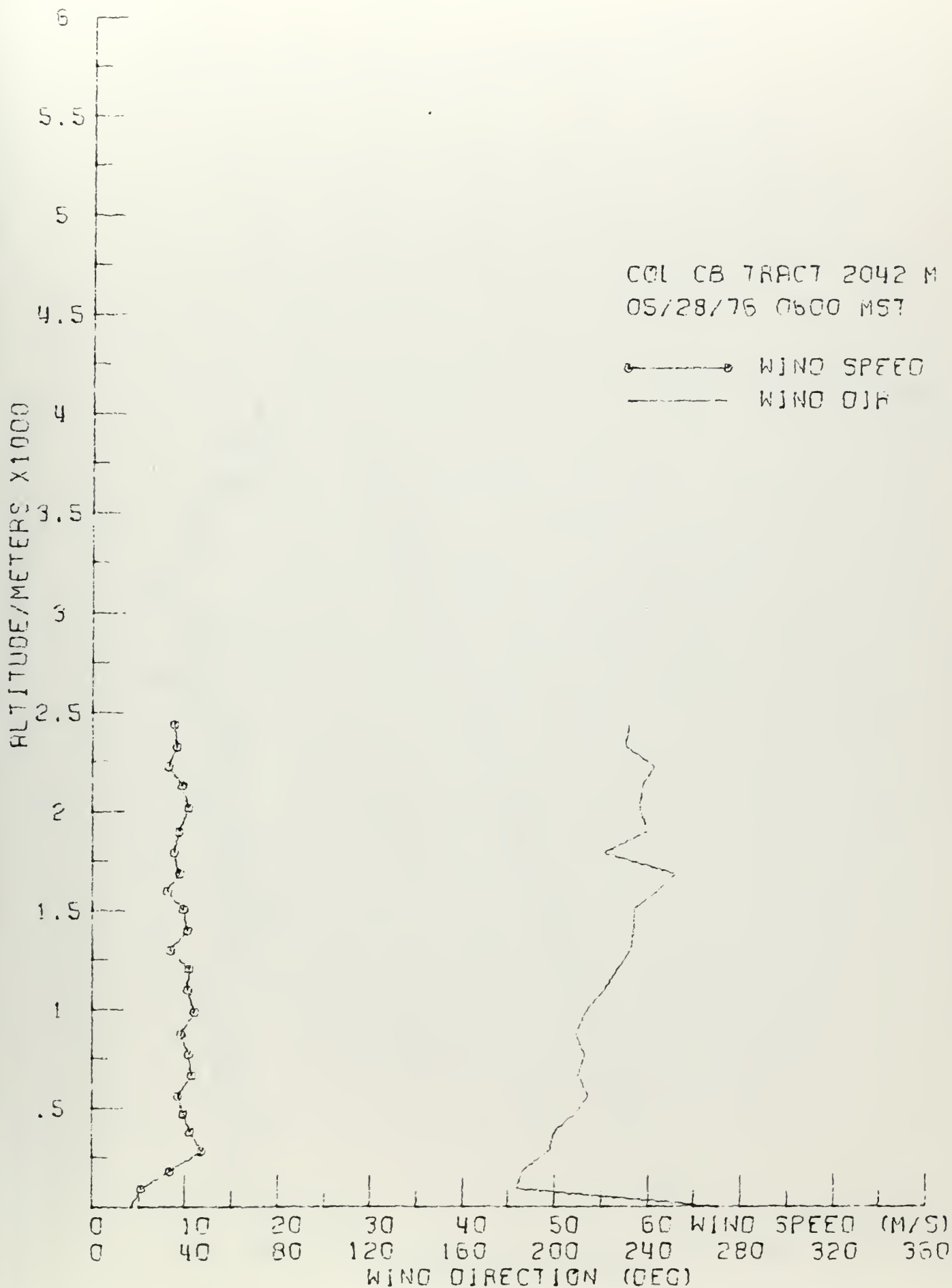
ALTITUDE/METERS X1000

COL CB TRACT 2042 M  
05/28/76 0600 MST

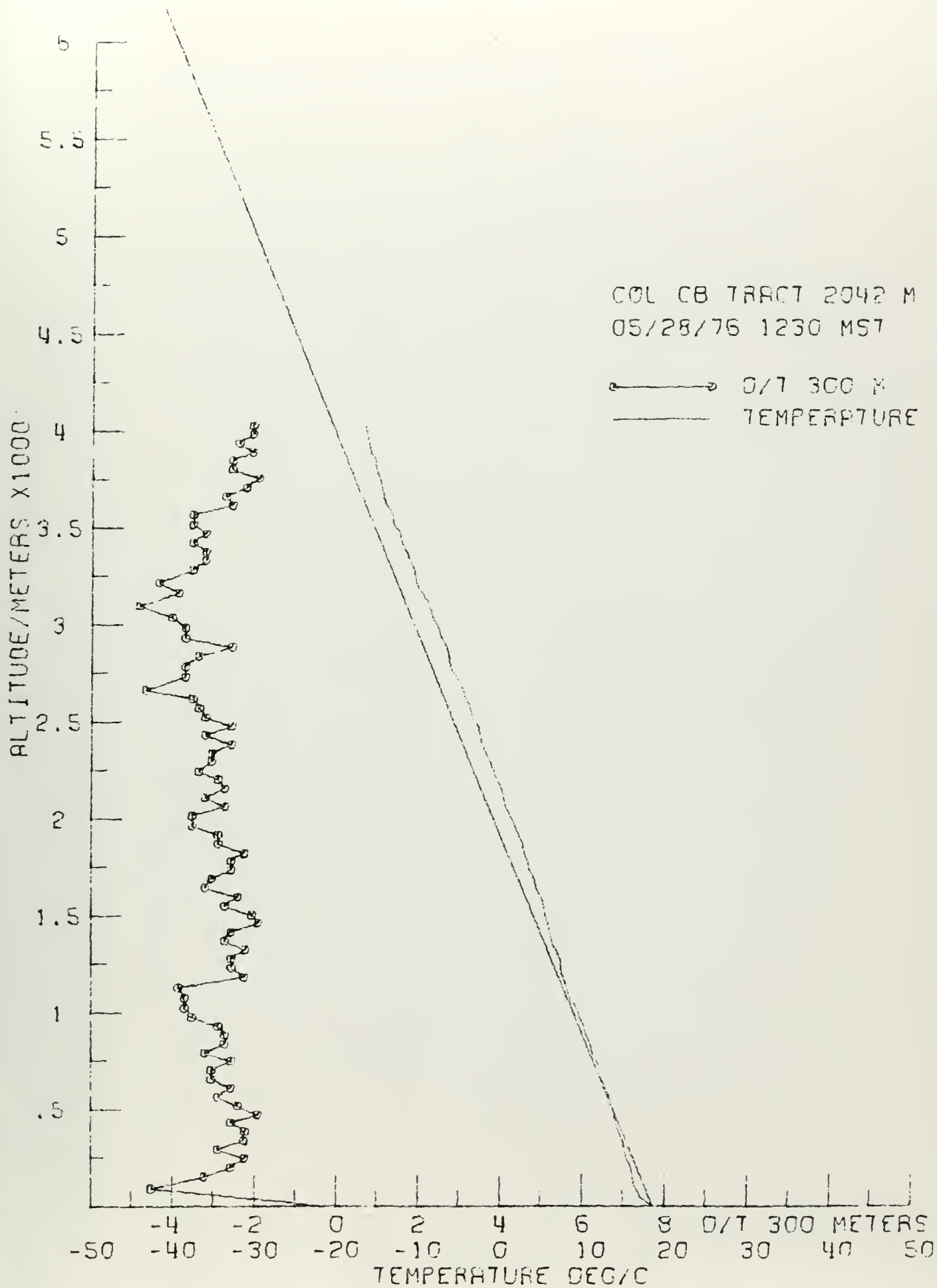
—○— D/T 300 M  
— TEMPERATURE





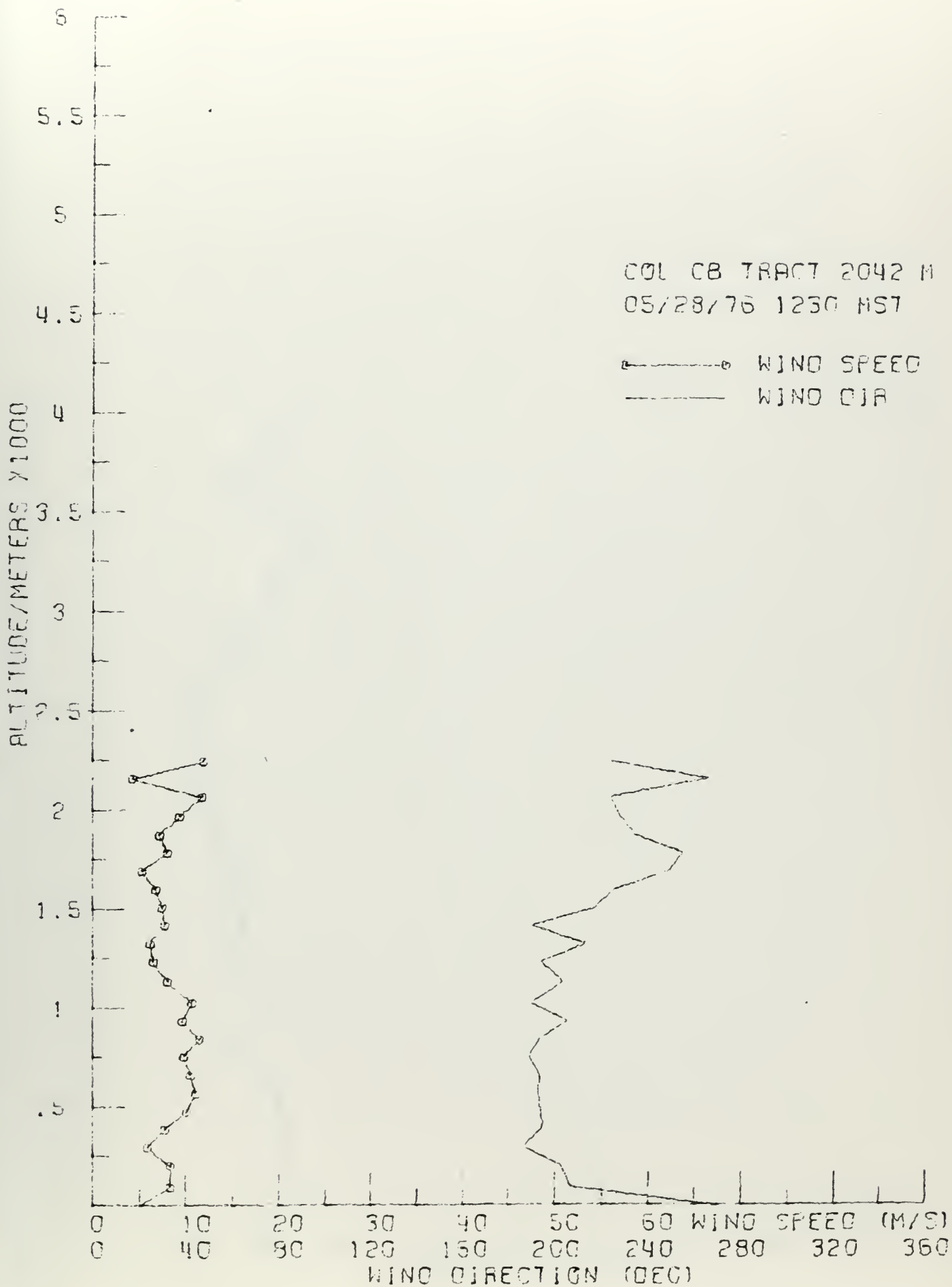




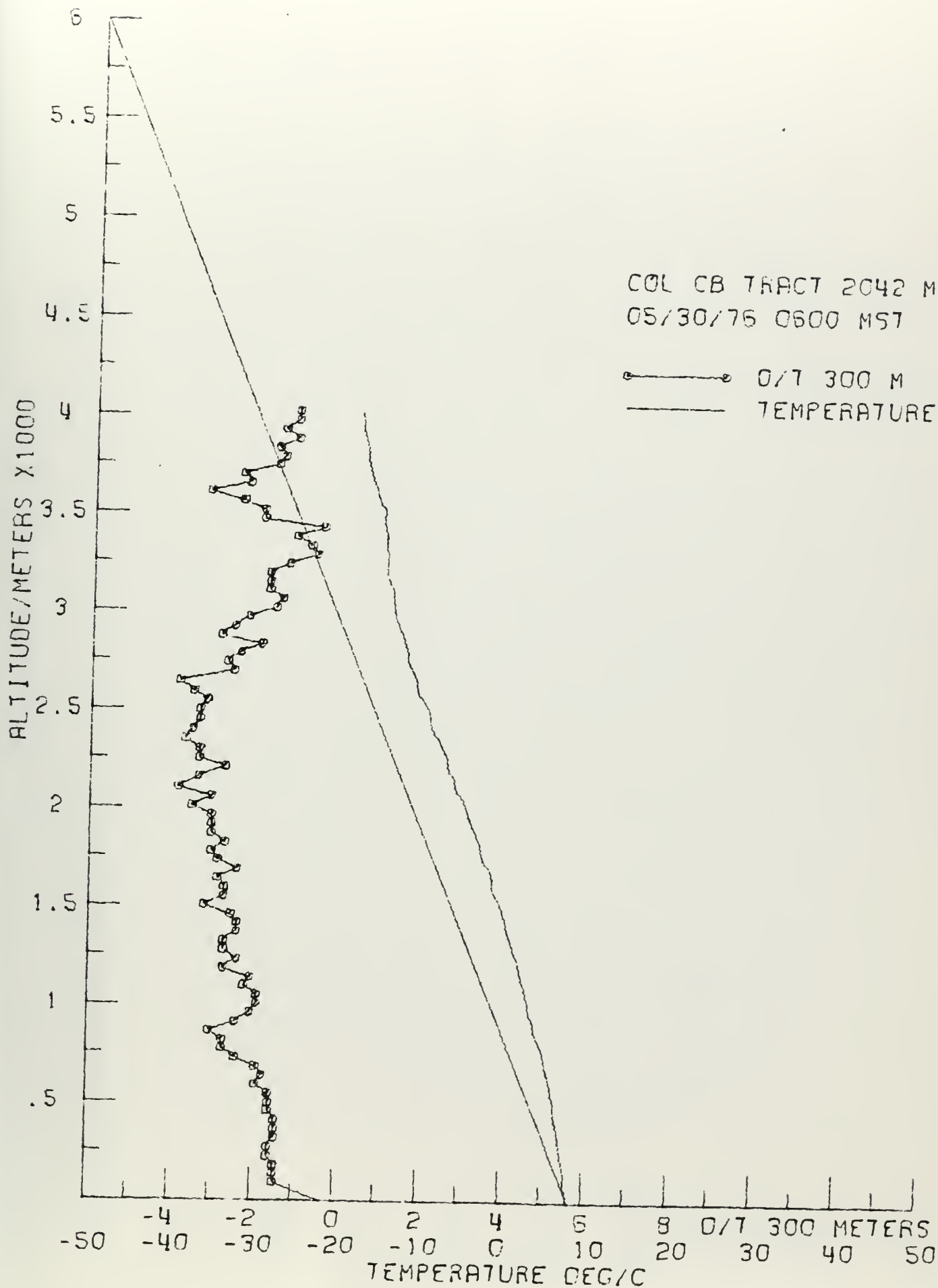




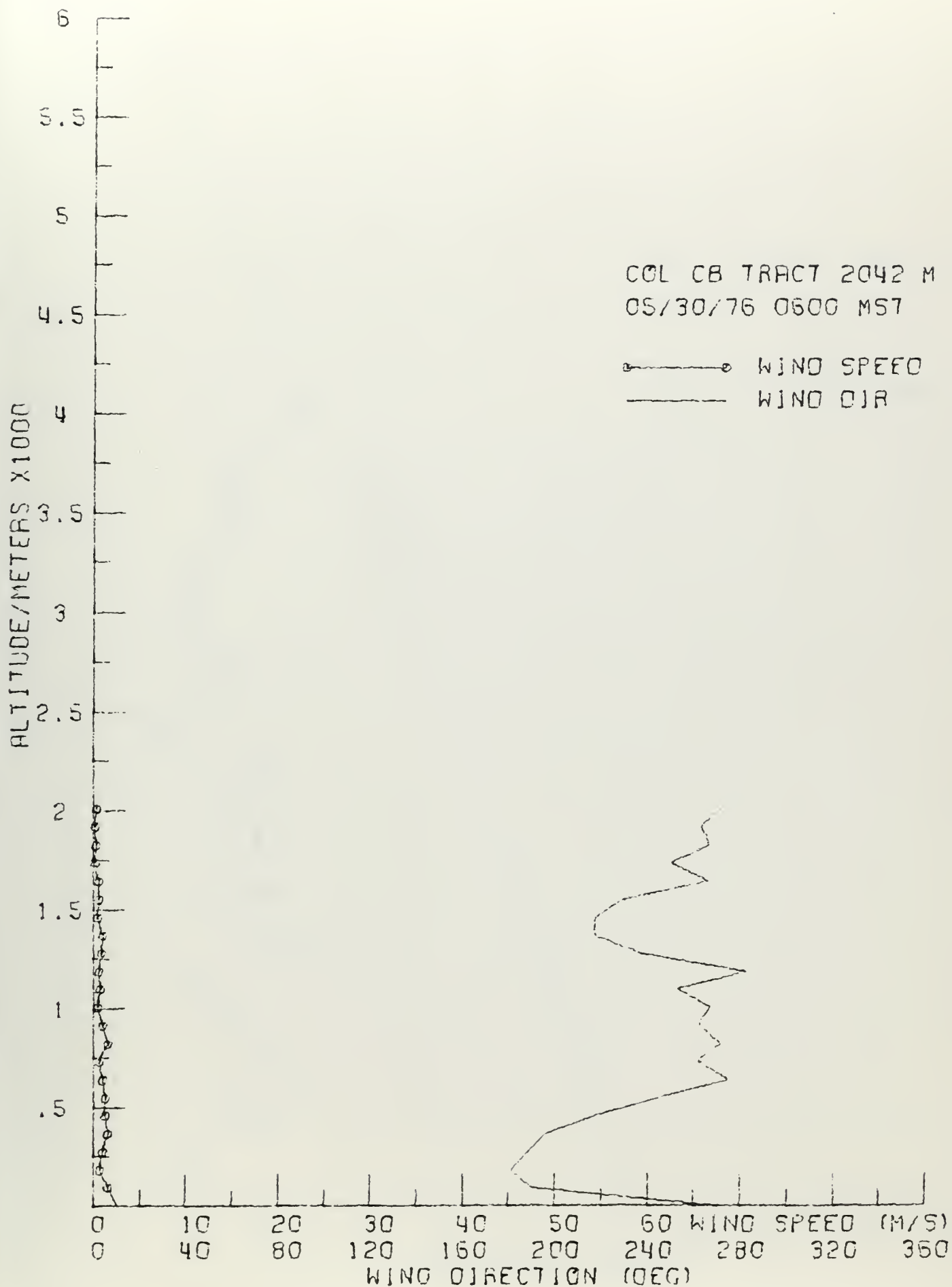




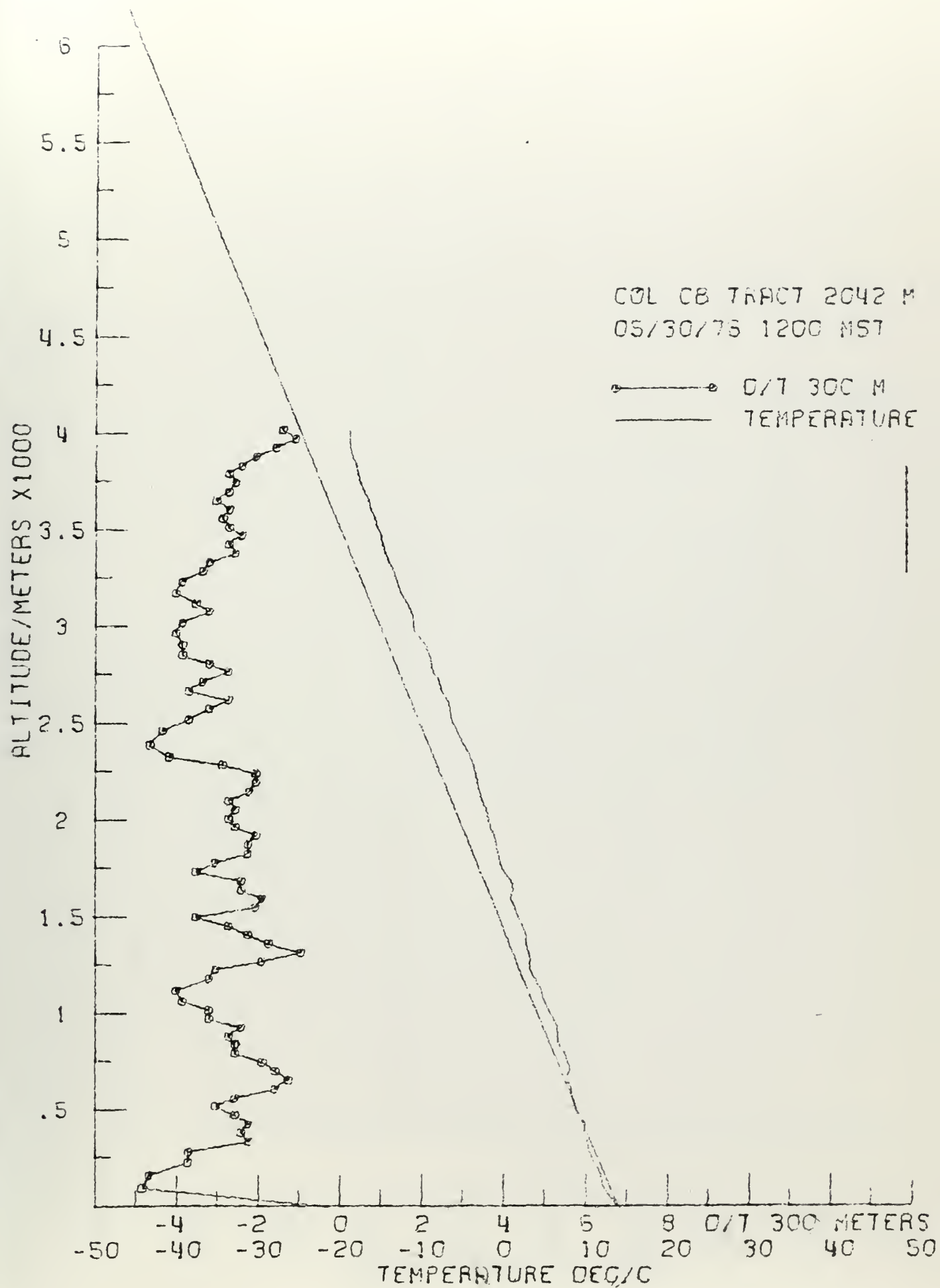






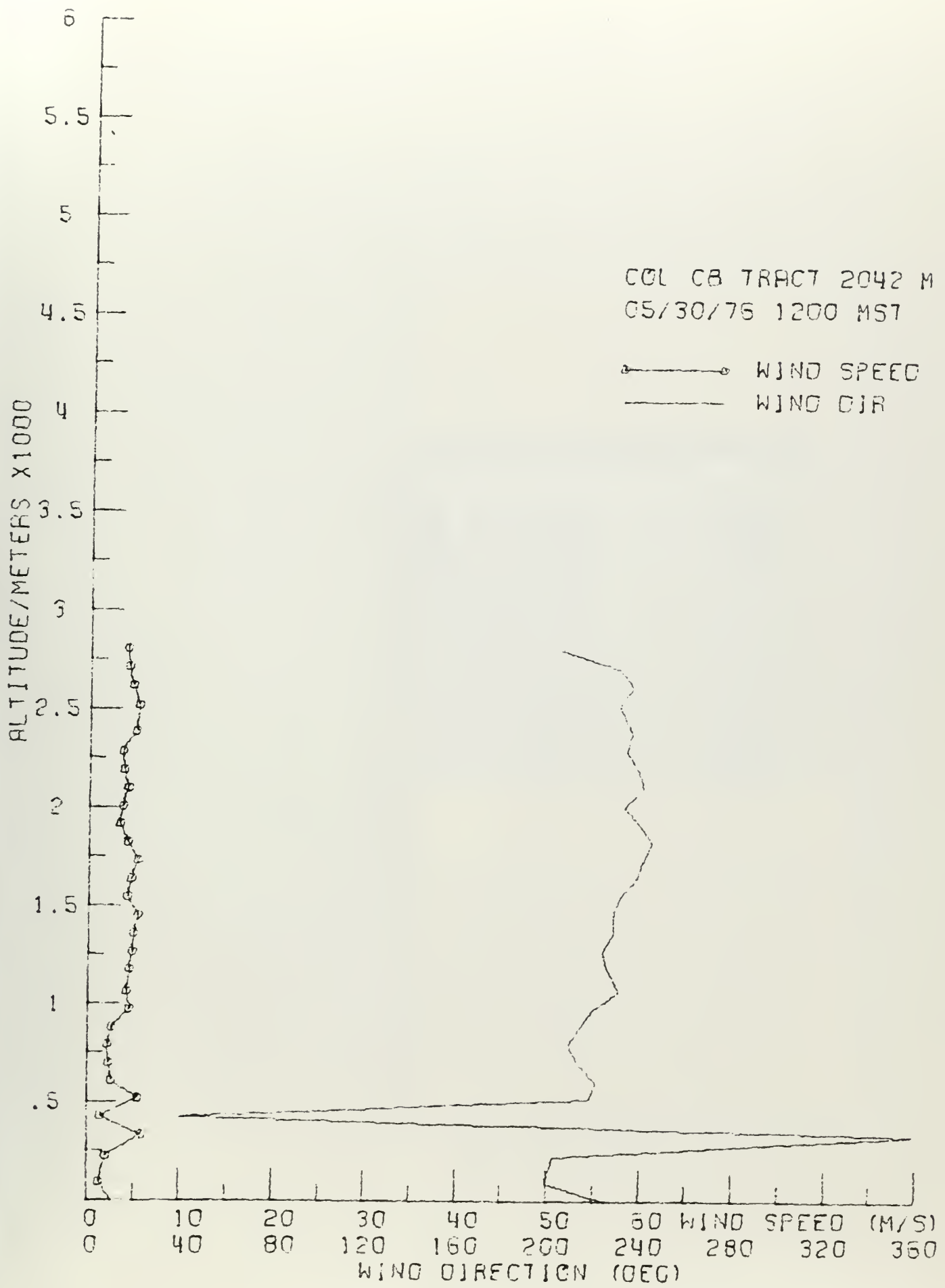














Form 1279-3  
(June 1984)

BORROWER

IN THE  
BUREAU OF LAND MANAGEMENT  
U.S. DEPARTMENT OF THE INTERIOR

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